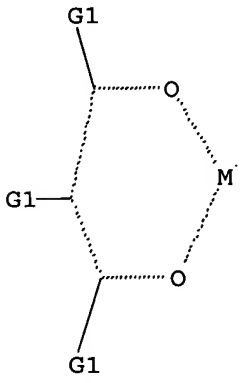
10/510476
Polyoxymethylene
Diketonate Catalyst
STN Search 2/1/07
by PEx'r
PNazario-Gonzalez
P1/30

(FILE 'HOME' ENTERED AT 15:50:58 ON 01 FEB 2007)

FILE 'REGISTRY' ENTERED AT 15:51:34 ON 01 FEB 2007
L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 H,Me,Et,n-Pr,i-Pr,n-Bu,i-Bu,Ph,CF3,CCl3,CBr3

Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 15:51:59 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 9786 TO ITERATE

20.4% PROCESSED 2000 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 189791 TO 201649
PROJECTED ANSWERS: 27812 TO 32468

L2 50 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 15:52:05 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 196553 TO ITERATE

100.0% PROCESSED 196553 ITERATIONS 31098 ANSWERS
SEARCH TIME: 00.00.02

L3 31098 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	172.10	172.31

FILE 'CAPLUS' ENTERED AT 15:52:14 ON 01 FEB 2007

2/1/07
PNG pr

FILE COVERS 1907 - 1 Feb 2007 VOL 146 ISS 6
FILE LAST UPDATED: 31 Jan 2007 (20070131/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

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=> s l3 and py<=2002
         36035 L3
      22869042 PY<=2002
L4       29636 L3 AND PY<=2002

=> s l4 and salts
        614704 SALTS
L5        2325 L4 AND SALTS

=> s l5 and metal oxide
       1710547 METAL
       1727116 OXIDE
         72817 METAL OXIDE
                 (METAL(W)OXIDE)
L6          40 L5 AND METAL OXIDE

=> d 1-40 bib abs
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L6 ANSWER 1 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:729554 CAPLUS
DN 137:218464
TI Reversible double-super affinity film and its preparing process and application
IN Wang, Rong; Jiang, Fengzhi; Song, Yanlin; Zhu, Daoben; Jiang, Lei
PA Inst. of Chemistry, Chinese Academy of Sciences, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 35 pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1315476	A	20011003	CN 2000-109176	20000614 <--
	CN 1128187	B	20031119		
PRAI	CN 2000-109176	A	20000614		
	CN 2000-103574		20000329		

AB The preparing process comprises: (1) adding 0.5-32 mol metal salt (composed of 80-98% titanium salt and 2-20% other metal salts) into 70-98 mol organic solvent, dispersing under ultrasonic to obtain a transparent solution; (2) adding 0.1-6 mol stabilizer in the transparent solution, adding 0.01-1.63 mol catalyst dropwise under stirring, reacting for 0.1-8 h to obtain metal salt mixture with part hydrolyzing products; (3) standing and aging for 3-8 h to obtain transparent sol with nanometer particles; (4) coating the sol on the surface of the substrate, drying at room temperature, sintering at 550-720° for 0.05-1.5 h to obtain a transparent film; and (5) inducing the transparent film under double-super affinity field

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for 10 min to 5 h to obtain the reversible double-super affinity film. The titanium salt is selected from tetra-Bu titanate, tetra-Et titanate, tetra(iso-propyl) titanate, tetra(2-ethyl- hexyl) titanate, tetraheptadecyl titanate, di(iso-propoxy) diacetylacetone titanium, di(n-butoxy) di(triethanolamino) titanium, dihydroxy di(lactic acid) titanium; and the other metal salts are selected from tin tetrachloride, tin acetate, zinc chloride, zinc acetate, zinc nitrate, tungsten hexachloride, tungsten dichloride dioxide, aluminum acetate hydroxide dihydrate, aluminum chloride, isopropoxy aluminum, strontium dichloride hexahydrate, strontium carbonate, indium trichloride, indium nitrate pentahydrate, indium acetate, ammonium molybdate, niobium pentachloride, silicon tetrachloride, silicon tetrabromide, tetra-Et silicate, tetra-Bu silicate, dimethoxy diethoxy silane, di-Me dichloro silicon, zirconium tetrachloride, zirconium nitrate pentahydrate and zirconium hypochlorite. The organic solvent is selected from ethanol, propanol, iso- propanol, n-butanol, iso-butanol, acetone, trichloromethane, n-hexane, benzene, toluene and tetrachloromethane. The stabilizer is selected from glycol, diglycol, triglycol, glycerin and propane-1,3-diol. The catalyst is selected from hydrochloric acid, acetic acid, nitric acid, sulfuric acid and ammonia. The inducing field is UV light, plasma, laser, 400- 500 nm visible light, Ar+ ion bombing or microwave. The reversible double-super affinity film is composed of TiO2 nanometer particles 80-98, and metal oxide nanometer particles 2-20%, and the diameter of the particles is 50-80 nm. The metal oxide nanometer particles are selected from SnO2, ZnO, WO3, Al2O3, SrTiO3, In2O3, MoO3, Nb2O3, SiO2, ZrO2 and their mixts. The reversible double-super affinity film could be used on the surface of glass, mirror, metal or ceramic for antifogging or self-cleaning, or on the surface of axis for modifying, or on the surface of filler of chromatog. column for modifying.

L6 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:702620 CAPLUS
DN 138:179659
TI Synthesis and characterization of nano-sized nickel(II), copper(I) and zinc(II) oxide nanoparticles
AU Illy-Cherrey, S.; Tillement, O.; Dubois, J. M.; Massicot, F.; Fort, Y.; Ghanbaja, J.; Begin-Colin, S.
CS Ecole des Mines, INPL, UMR CNRS 7584, Laboratoire de Science et Genie des Materiaux Metalliques, Nancy, F-54042, Fr.
SO Materials Science & Engineering, A: Structural Materials: Properties, Microstructure and Processing (2002), A338(1-2), 70-75
CODEN: MSAPE3; ISSN: 0921-5093
PB Elsevier Science B.V.
DT Journal
LA English
AB Ultrafine, equiaxed and monodisperse oxide particles with an average grain diameter at 1-10 nm were prepared by a two-step chemical approach: the chemical reduction of metallic salts by activated sodium hydride in THF solvent, followed by oxidation of the metallic species with small amts. of O2-N2 gas. Such particles are easily, quant. and reproducibly prepared and are stable on storage. The average crystallite sizes and the agglomeration of particles were estimated from dark-field transmission electron micrographs. The nature of the chemical bonding was studied by EELS and structural information were obtained using selected area electron diffraction patterns.
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:253030 CAPLUS
DN 136:280901
TI Manufacture of storage-stable coating compositions for spectacle lenses
IN Watanabe, Jun; Itoh, Takanobu

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PA Hoya Corporation, Japan
SO Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1193285	A2	20020403	EP 2001-121723	20010918 <--
EP 1193285	A3	20030129		
EP 1193285	B1	20050525		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002105398	A	20020410	JP 2000-300143	20000929 <--
JP 3526439	B2	20040517		
JP 2003286439	A	20031010	JP 2003-64831	20000929
AU 748830	B2	20020613	AU 2001-69979	20010910 <--
AT 296326	T	20050615	AT 2001-121723	20010918
CA 2357472	A1	20020329	CA 2001-2357472	20010919 <--
CA 2357472	C	20020329		
CN 1346987	A	20020501	CN 2001-140928	20010927 <--
US 2002064665	A1	20020530	US 2001-965867	20011001 <--
US 6605361	B2	20030812		
PRAI JP 2000-300143	A	20000929		

OS MARPAT 136:280901
AB The coating composition is manufactured by adding an acetylacetonate metal salt and
an aliphatic amine to a liquid mixture containing (A) metal oxide colloid particles and (B) an organosilicon compound Thus, γ-glycidoxypropyltrimethoxysilane 15, methanol sol of modified stannic oxide-zirconium silicon oxide composite 49 and 0.001 N HCl 3.5 parts were mixed for 50 h, blended aluminum trisacetylacetonate 0.6, diisobutylamine 0.01 and propylene glycol monomethyl ether 30 parts for 80 h, applied to a treated lens substrate (EYAS) and cured at 120° for 60 min, showing good storage stability and scratch resistance.

L6 ANSWER 4 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:169483 CAPLUS
DN 136:225465
TI Epitaxy of aluminum rare earth metal oxide thin film on single crystal substrate
IN Yamaguchi, Iwao; Manabe, Takaaki; Kumagaya, Toshiya; Mizuta, Susumu; Suzuki, Shigeru; Yamaguchi, Yasuaki; Shimizu, Norio
PA Sangyo Gijutsu Sogo Kenkyusho, Japan; National Institute of Advanced Industrial Science and Technology
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002068900	A	20020308	JP 2000-265134	20000901 <--
JP 3507887	B2	20040315		
PRAI JP 2000-265134		20000901		

AB A rare earth metal-containing compound is dissolved in a solvent then the resulting uniform solution is applied on an Al2O3 single crystal substrate, dried, and fired to give the Al rare earth metal oxide epitaxial film. The Al2O3-supported thin film, preferably LaAlO3 thin film, is suitable for intermediate layer for Al2O3-supported perovskite oxide ceramic superconductor with large area.

L6 ANSWER 5 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:169476 CAPLUS

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DN 136:225454
TI Yttrium barium copper oxide superconductors and their manufacture on alumina substrate with large areas
IN Manabe, Takaaki; Yamaguchi, Iwao; Kumagaya, Shunya; Mizuta, Susumu; Suzuki, Shigeru; Yamaguchi, Yasuaki; Shimizu, Norio
PA Sangyo Gijutsu Sogo Kenkyusho, Japan; National Institute of Advanced Industrial Science and Technology
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002068892	A	20020308	JP 2000-265066	20000901 <--
	JP 3612556	B2	20050119		
PRAI	JP 2000-265066		20000901		

AB The superconductor comprises (A) an alumina single crystal substrate, (B) an epitaxial layer of rare metal-Al mixed oxides with molar ratio of rare metal/Al/O of 1/1/3 having perovskite structures, and (C) a superconductor layer of YBa2Cu3O7, wherein the middle epitaxial layer is manufactured by applying an organic solution of rare metal compds. on the substrate and firing.

L6 ANSWER 6 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:224350 CAPLUS
DN 134:260534
TI Metal-exchanged carboxylato-alumoxanes and process of making metal-doped alumina
IN Kareiva, Aivaras; Bai, Chuansheng; Harlan, Charles Jeffrey; Macqueen, D. Brent; Barron, Andrew R.; Cook, Ronald L.
PA Rice University, USA; Tda Research, Inc.
SO U.S., 9 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6207130	B1	20010327	US 1998-58587	19980410 <--
PRAI	US 1997-43860P	P	19970411		

AB A method was developed for the solution-based metal exchange of carboxylato-alumoxanes [Al(O)x (OH)y (O2 CR)z]n with a wide range of metal cations. Metal-exchanged carboxylato-alumoxanes are new, particularly those in which .apprx.10% to .apprx.50% or more of the Al ions are exchanged for other metal ions. Addnl., the carboxylic acid ligands can be stripped from the boehmite core of metal-exchanged carboxylato-alumoxanes at low temperature giving metal-exchanged boehmite particles. These new material phases can be used as intermediates for preparation of mixed metal aluminum oxide materials. Thermolysis of the metal-exchanged carboxylato-alumoxanes or metal-exchanged boehmite particles results in doped aluminas (M/Al2O3), binary (MAlOx), ternary (MM'AlOx) and even more complex metal aluminum oxide compds., where M and M' are metal ions other than those of aluminum and are preferably those of Lanthanide metals or transition metals. The method gave pure phase materials as well as the preparation of metastable metal aluminum oxide phases. The carboxylato-alumoxanes were prepared by the reaction of boehmite (or pseudoboehmite) with carboxylic acids in a suitable solvent. Up to at least half of the aluminum cations in the boehmite lattice of the carboxylato-alumoxanes can be replaced by the reaction of metal acetylacetonates with the carboxylato-alumoxane in a suitable solvent. The metal exchange reaction can also be carried out by reaction with soluble metal salts. Reactions of boehmite with the metal acetylacetonates (or soluble metal salts) do not lead to the metal exchange reaction observed for the carboxylato-alumoxanes.

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RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:220269 CAPLUS
DN 134:238650
TI Production method of fire-resistant epoxy resin foams
IN Inoue, Akira; Inoguchi, Yasushi
PA Asahi Fiber Glass Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001081223	A	20010327	JP 1999-259419	19990913 <--
PRAI	JP 1999-259419		19990913		

AB Epoxy resin foams are obtained by foaming-curing mixts. comprising (A) epoxy resins with ≥2 epoxy groups 100, (B) metal oxides 1-20, (C) metal hydroxides 50-300, (D) blowing agents 1-50, (E) foam regulators 0.01-10, (F) organic metal compound curing catalysts 0.01-5, (G) P compds. obtained by dehydration condensation of phosphoric acid and/or polyphosphoric acid with metal oxides and/or metal hydroxides 10-100, (H) urea 0.1-10, (I) amine curing catalysts 0.01-5 parts, where epoxy resin main compns. comprising A-F and phosphoric acid type curing compns. comprising G-I are prepared sep. and mixed to give the mixts. Thus, main composition comprising phenol novolak polyglycidyl ether 100.0, calcium oxide 5.0, stearic acid-treated aluminum hydroxide (average particle size 10 μm) 120.0, dimethylpolysiloxane-polyoxyalkylene 1.0, dibutyltin oxide 0.5, 1,1-dichloro-1-fluoroethane 15.0 parts 100, P compound comprising 80% phosphoric acid 100.0, phosphoric acid-ethylene copolymer 3.8, aluminum hydroxide (average particle size 50 μm) 15.0, and zinc oxide 10.0 parts 60.0, triethylenediamine 2.0, and urea 5.0 parts gave a foam having free foam d. 100 kg/m3 and good compression strength, dimensional stability (at 100° for 72 h, at 60° and 90 RH% for 72 h), and fire resistance.

L6 ANSWER 8 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:36228 CAPLUS
DN 134:118234
TI Catalysts comprising zeolites, Group VIII metals and additional metals introduced as water-soluble organometallic compounds, for hydrocarbon conversion processes
PA Institut Francais du Petrole, Fr.
SO Fr. Demande, 22 pp.
CODEN: FRXXBL
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2792549	A1	20001027	FR 1999-5293	19990426 <--
	FR 2792549	B1	20010601		
PRAI	FR 1999-5293		19990426		

OS MARPAT 134:118234
AB Catalysts suitable for hydrocarbon conversion processes, e.g., for isomerization, dismutation or transalkylation of aromatic hydrocarbons, comprise a mol. sieve (zeolite) support, a metal oxide binder, ≥1 Group VIII metals, and ≥1 metals chosen from Ge, Sn, Pb, Re, Nb, Ga, In, Tl. The catalysts are prepared by impregnation of the support.

L6 ANSWER 9 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

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AN 2001:36227 CAPLUS
DN 134:118233
TI Preparation of a catalyst comprising Group VIII metals and additional metals introduced as water-soluble organometallic compounds, for hydrocarbon conversion processes
IN Morin, Stephane; Le Peltier, Fabienne; Didillon, Blaise; Brunard, Nathalie
PA Institut Francais du Petrole, Fr.
SO Fr. Demande, 22 pp.
CODEN: FRXXBL
DT Patent
LA French
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2792548	A1	20001027	FR 1999-5292	19990426 <--
	FR 2792548	B1	20010518		
	DE 10020049	A1	20010111	DE 2000-10020049	20000422 <--
	GB 2353734	A	20010307	GB 2000-10074	20000425 <--
	GB 2353734	B	20030402		
	JP 2000334302	A	20001205	JP 2000-126153	20000426 <--
PRAI	FR 1999-5290	A	19990426		
	FR 1999-5291	A	19990426		
	FR 1999-5292	A	19990426		

OS MARPAT 134:118233
AB Catalysts suitable for transformation of hydrocarbons, e.g., for dehydrogenation of aliphatic hydrocarbons, especially C3-22-paraffins, comprise a metal oxide support, a binder, ≥1 Group VIII metals, and ≥1 metals chosen from Ge, Sn, Pb, Re, Nb, Ga, In, Tl. The metals are introduced into the support by sol-gel processing or drop coagulation.

L6 ANSWER 10 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:847902 CAPLUS
DN 134:30443
TI Cage-like silsesquioxane-containing compositions useful for manufacture of optical films
IN Kita, Hiroshi; Takiyama, Nobuyuki
PA Konica Co., Japan
SO Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000334881	A	20001205	JP 1999-150069	19990528 <--
PRAI	JP 1999-150069		19990528		

OS MARPAT 134:30443
AB The compns. can be a metal oxide sol or gel composition containing a cage-like silsesquioxane, e.g., [RSiO1.5]8, [RSiO1.5]10, [RSiO1.5]12 and [RSiO1.5]14 (R = H, alkyl, alkenyl, aryl) in metal alkoxide or metal salt, a resin composition containing a cage-like silsesquioxane in a polymer or a polymer-composite metal oxide sol or gel composition containing a cage-like silsesquioxane in metal alkoxide- or metal salt-combined polymer. The title films with uniform micro void, low refractive index and high stiffness are manufactured by spin-coating one of the compns. on a transparent substrate such as acrylate panel and radiating under UV light and can be used as functional optical films such as antireflective films.

L6 ANSWER 11 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

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AN 2000:467818 CAPLUS
DN 133:81845
TI Method of producing solution-derived metal oxide thin films
IN Boyle, Timothy J.; Ingersoll, David
PA Sandia Corporation, USA
SO U.S., 4 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6086957	A	20000711	US 1999-321911	19990528 <--
PRAI US 1999-321911		19990528		

AB A method of preparing metal oxide thin films by a solution method. A β-metal β-diketonate or carboxylate compound, where the metal is selected from Groups 8, 9, 10, 11, and 12 of the Periodic Table, is solubilized in a strong Lewis base to form a homogeneous solution This precursor solution forms within minutes and can be deposited on a substrate in a single layer or a multiple layers to form a metal oxide thin film. The substrate with the deposited thin film is heated to change the film from an amorphous phase to a ceramic metal oxide and cooled.
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:349105 CAPLUS
DN 133:6151
TI Procedure for the Hydroxylation of benzene with hydrogen peroxide
IN Notheis, Ulrich; Konietzni, Frank; Maier, Wilhelm F.; Stoeckmann, Marion
PA Bayer A.-G., Germany
SO Ger. Offen., 8 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19853491	A1	20000525	DE 1998-19853491	19981119 <--
PRAI DE 1998-19853491		19981119		

AB The available invention refers to a procedure for the catalytic hydroxylation of benzene with H2O2 in presence of amorphous micro-porous oxide mixture, prepared by hydrolysis and cocondensation of metal salts or alkoxides. E.g., a catalyst, prepared from iron(III) acetylacetonate, cerium(III) acetylacetonate, aluminum(III) sec-butoxide and tetraethoxysilane treated with HCl in EtOH, used for hydroxylation of PhH, gave 21% product which was 73% selective for phenol.
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:691136 CAPLUS
DN 131:316579
TI Adhesive and encapsulating material with fluxing properties and production of an electronic device using it
IN Craig, Hugh Patrick; Lowrie, David John James
PA Multicore Solders Limited, UK
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

2/1/07 PNG P8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9954372	A1	19991028	WO 1999-GB1236	19990422 <--
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
	AU 9936179	A	19991108	AU 1999-36179	19990422 <--
	GB 2353528	A	20010228	GB 2000-28470	19990422 <--
	JP 2002512278	T	20020423	JP 2000-544710	19990422 <--
	US 6971163	B1	20051206	US 2001-673992	20010116
PRAI	GB 1998-8587	A	19980422		
	GB 1998-21162	A	19980929		
	WO 1999-GB1236	W	19990422		

AB In attachment of an elec. component to an elec. termination on a component-carrying substrate by a solder bump technique, a thermally curable adhesive composition is used for encapsulating purposes which comprises a thermosetting polymer and a chemical crosslinking agent which has fluxing properties but which is unreactive or of severely restricted reactivity with the polymer without the action of heat and/or a catalyst. The composition is to be thermally curable when heated to soldering temps. in a reaction which is catalyzable merely by metal oxide fluxed from metal surfaces by the crosslinking agent, then dissolved in the thermosetting polymer.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:431806 CAPLUS
DN 131:122771
TI Substrates coated with transition metal oxides showing neutral reflection color and their manufacture
IN Kato, Akemi; Sanada, Yasuhiro
PA Asahi Glass Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11189434	A	19990713	JP 1997-358053	19971225 <--
PRAI	JP 1997-358053		19971225		

AB The title substrates have top coatings made of oxides of Co, Cr, Mn, Fe, Ni, Cu, Zn, and/or lanthanoid, and intermediate layers having n equal or larger than that of the substrate and equal or smaller than those of the oxides. The manufacture method is also claimed. Preferably, the oxides are prepared by sol-gel process using polyethylene glycol oligomers and salts of the metals. The transition metal oxide coatings show neutral reflection color, and excellent durability.

L6 ANSWER 15 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:364937 CAPLUS
DN 131:110288
TI New organometallic and coordination chemistry routes towards unsupported and silica-supported bismuth-based oxide-type materials
AU Devillers, M.; Lebrun, S.; Tirions, O.; Wullens, H.
CS Laboratoire de Chimie Inorganique et Analytique, Universite Catholique de Louvain, Louvain-la-Neuve, B-1348, Belg.
SO Materials Research Society Symposium Proceedings (1999), 547(Solid-State Chemistry of Inorganic Materials II), 203-208
CODEN: MRSPDH; ISSN: 0272-9172
PB Materials Research Society

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DT Journal
LA English
AB Coordination and organometallic compds. containing Bi, La or Mo were used as precursors for the preparation of unsupported or SiO2-supported Bi-based oxides. Bi(III) and La(III) polyaminocarboxylates, and more specifically homo- and heteropolymetallic complexes of triethylenetetraaminehexaacetic acid (H6ttha) constitute adequate precursors for the formation of mixed Bi2-xLaxO3 oxides at moderate temps. SiO2-supported Bi molybdates were obtained from impregnation or combined impregnation-deposition procedures involving Bi β-diketonates, carboxylates or mixed acetate-N-methylimidazole Bi complexes, in association with molybdenyl acetylacetonate or heteroleptic carbonyl-pyridine Mo complexes, either dissolved or dispersed in various organic solvents.
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 16 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:3470 CAPLUS
DN 130:70560
TI Carbon monoxide sensors with controlled response threshold
IN Goldstein, Mark K.; Oum, Michelle S.; Johnson, Paula I.; Li, Ping; Pucher, Shawn R.
PA Quantum Group, USA
SO Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 884590	A1	19981216	EP 1997-304102	19970612 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 11023473	A	19990129	JP 1997-157123	19970613 <--
PRAI	EP 1997-304102	A	19970612		

AB Carbon monoxide sensors having a controlled response threshold comprise a porous semi-transparent substrate that is impregnated with a chemical reagent. The chemical reagent is formulated to regenerate itself for a period of at least a year, and is tailored to provide optimum carbon monoxide response within a predetd. range of relative humidity conditions. In one embodiment of the invention, the chemical reagent is formulated to provide a predetd. carbon monoxide response threshold of .apprx.>15 ppm. In another embodiment, the sensor comprises an optically thin metal oxide film interposed between the substrate surface and the chemical reagent. The metal oxide film is sufficiently thin to provide a predetd. carbon monoxide response threshold of greater than about 15 ppm. Carbon monoxide sensor systems comprise two of the sensors that are both specifically formulated to provide optimum carbon monoxide response under low to high relative humidity conditions, and that are each adapted to provide a carbon monoxide response threshold of .apprx.>15 ppm.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 17 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:786132 CAPLUS
DN 130:28240
TI Manufacture of heat-reflecting glass blocks
IN Hashibe, Kichio; Yamaji, Michio; Nishijima, Yoshikazu
PA Nippon Electric Glass Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

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FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10324543	A	19981208	JP 1997-152860	19970526 <--
PRAI	JP 1997-152860		19970526		

AB Metal oxide coating(s) are formed on inner or outer surface(s) of bottom(s) of at least one of a pair of hollow glass blocks having an open end, by application of acetylacetone metal salts, and then the blocks are unified by heat fusion of the open ends of the pairs. The open-end blocks are manufactured by press forming. The blocks reflect heat and are suitable for outer walls for buildings.

L6 ANSWER 18 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:619291 CAPLUS
DN 129:331362
TI Synthesis, Characterization, and Optical Properties of Metal-Containing Fluorinated Polyimide Films
AU Sawada, Takashi; Ando, Shinji
CS NTT Science and Core Technology Laboratory Group, Musashino-shi Tokyo, 180-8585, Japan
SO Chemistry of Materials (1998), 10(11), 3368-3378
CODEN: CMATEX; ISSN: 0897-4756
PB American Chemical Society
DT Journal
LA English
AB Five kinds of metal-containing fluorinated polyimide films were prepared by thermal curing of poly(amic acids) containing metallic salts or organometallic complexes. The chemical states, average sizes, and spatial distribution of the metallic particles were examined, and the thermal and optical properties of the films were compared with those of the colorless host polyimide. For characterizing the metal-containing polyimide films, measurements of refractive indexes and wide-angle X-ray diffraction were newly applied. Copper and palladium complexes were fully or partially oxidized to form metal oxide particles, and silver complexes and gold salts were converted into metal particles after thermal imidization. All the films were much less transparent in the visible region than the host polyimide. However, the metal-containing films, except for the gold-containing film, transmitted higher than 80% at 1550 nm near-IR. The precipitated silver and gold particles increased the average refractive indexes of the polyimides.
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 19 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:599440 CAPLUS
DN 129:246629
TI Surface-treating materials, surface treatment therewith and their treated articles
IN Tsujimoto, Soichiro; Tanikawa, Kenichi; Nakasono, Yutaka
PA Osaka Gas Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10237429	A	19980908	JP 1997-346126	19971216 <--
PRAI	JP 1996-344972	A	19961225		
	JP 1996-344973	A	19961225		
	JP 1996-344974	A	19961225		

AB Title materials, useful for eating wares, bath room utensils, kitchen sinks, automobile parts, mirrors, glass wares, and air-conditioning fins,

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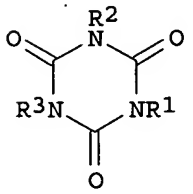
comprise organic metal compds. and metal oxide particles. A ceramic tile was primed with 0.1-μm Atolon NSi 500, coated with a mixture of 1:1 Atolon NSi 500 and Aerosil 300 to a 1-μm thickness, and baked at 250° for 1 h to form a tile with water contact angle 0°.

L6 ANSWER 20 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1997:12722 CAPLUS
DN 126:48450
TI Curable hydrolyzable silyl-terminated polyether sealant compositions for fireproofing of building materials
IN Tono, Masaki; Iuchi, Kenji; Yamauchi, Yasushi
PA Sekisui Chemical Co. Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 08269316	A	19961015	JP 1995-70031	19950328 <--
PRAI JP 1995-70031		19950328		

OS MARPAT 126:48450
GI



II

AB Title compns., useful as air- and watertight sealants in building construction, comprise 100 parts hydrolyzable silyl-terminated polyethers, 90-300 parts inorg. fillers, 20-200 parts mixts. of ammonium polyphosphates (I), cyclic isocyanurates II [R1-3 = H, C1-16 (di)hydroxyalkyl, C6-14 (di)hydroxyaryl], and metal oxides, and 0.1-10 parts crosslinking catalysts. Thus, Silyl 5A03 (silyl-terminated polyether) 100, NS 3000 ($CaCO_3$) 100, I (AP 422) 20, tris(2-hydroxyethyl) isocyanurate 10, TiO_2 2, dioctyl phthalate 20, vinyltrimethoxysilane 2, and dibutyltin bis(acetylacetonate) 2 parts were blended to give title composition showing tack-free time 4 h and retention of viscosity after 1 wk at 50°. A laminate of a wooden particleboard and a cement material was sealed with the composition then exposed to flame at 900° for 30 min showing temperature retention of the sealant backside <150°.

L6 ANSWER 21 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:124001 CAPLUS
DN 124:153752
TI Manufacture of lead-containing ceramic powders
IN Hatake, Kotaro; Okabe, Kazumi; Hamachi, Yukio
PA Murata Manufacturing Co, Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 07315928	A	19951205	JP 1994-108426	19940523 <--

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PRAI JP 1994-108426 19940523
AB The process for consists of dispersing components of PbMO3 (M = ≥1 di- to hexavalent metal) powders in solvents, preferably which are water and/or alcs.; mixing the slurry obtained with metal salts, preferably whose oxides are sintering aids; drying the slurry; and calcining the metal salt-loaded powders. The ceramic powders are useful for dielec. and piezoelec. ceramic materials.

L6 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1995:248420 CAPLUS
DN 122:136248
TI Coating solutions for formation of crack-free metal oxide films
IN Morishima, Hiroyuki; Shimamura, Yasuo; Yamamoto, Yasuhiro; Uchimura, Shunichiro; Sato, Nintei
PA Hitachi Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 06172709	A	19940621	JP 1992-330459	19921210 <--
PRAI JP 1992-330459		19921210		

OS MARPAT 122:136248
AB Alkoxysilanes or acetoxysilanes, metal alkoxides or chelates, and Li alkoxides or chelates are hydrolyzed and condensed to prepare coating solns. Thus, Si(OMe)4 120, diacetylacetone Mg 25, MeOLi 3 g, ethanol, DMF, and maleic acid were heated, mixed with water, coated on a Si wafer, and burnt to form a coating.

L6 ANSWER 23 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1992:624425 CAPLUS
DN 117:224425
TI Ruthenium-containing oxide ceramic resistor and its manufacture
IN Hayashi, Chiharu; Okano, Kazuyuki; Ogawa, Tatsuo
PA Matsushita Electric Industrial Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 04139802	A	19920513	JP 1990-263998	19901001 <--
PRAI JP 1990-263998		19901001		

AB Claimed are (1) manufacture of an elec. resistor from an organic solvent solution containing a Pb- or Bi-containing compound, a Ru-containing compound, a Si-containing compound, and an alkali metal- or alkaline earth metal-containing compound, which is applied onto an elec. insulating substrate and fired and (2) the resistor, prepared by the described process, comprising a complex oxide containing Ru and Pb or Bi, a Si oxide, and an alkali metal or alkaline earth metal oxide. The resulting resistor, which may have cubic pyrochlore-type single phase, is useful for high resistance region with improved noise property.

L6 ANSWER 24 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1992:206641 CAPLUS
DN 116:206641
TI Hexavanadium polyoxoalkoxide anion clusters: structures of the

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mixed-valence species (Me3NH)[VIV5VVO7(OH)3{CH3C(CH2O)3}3] and of the reduced complex Na2[VIV6O7{CH3CH2C(CH2O)3}4]

AU Khan, M. Ishaque; Chen, Qin; Zubieta, Jon; Goshorn, David P.

CS Dep. Chem., Syracuse Univ., Syracuse, NY, 13244, USA

SO Inorganic Chemistry (1992), 31(9), 1556-8
CODEN: INOCAJ; ISSN: 0020-1669

DT Journal

LA English

AB (Me3NH)[V6O7(OH)3{CH3C(CH2O)3}3] (1) and Na2[V6O7{CH2CH2C(CH2O)3}4] (2) were prepared by the hydrothermal reactions of vanadate salts with the appropriate trisalkoxy ligand. The complexes exhibit the {V6O19} core with 9 or 12 doubly-bridging oxo-groups replaced by 9 and 12 doubly-bridging alkoxo groups for 1 and 2, resp. Although an existence of such clusters as 1 and 2 was suggested by the isolation of [V6O7(OH)6{RC(CH2O)3}2]2-, these species could not be prepared by conventional synthetic routes using Bu4N+ salts of various vanadates. Their ready isolation by hydrothermal synthesis demonstrates the potential of this technique for the preparation of metal oxide coordination complexes. Crystal data: 1, hexagonal, space group P63mc, a 12.792(2), c 10.692(2), Z = 2, R = 0.046; 2, cubic, space group Fd3, a 19.202(2) Å, Z = 8, R = 0.056.

L6 ANSWER 25 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:85861 CAPLUS

DN 116:85861

TI Simple method for metalization of organic polymer moldings

IN Takei, Masatoshi; Nagai, Shoichi; Kobayashi, Yukio; Uenishi, Michiharu

PA Mitsubishi Rayon Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03231935	A	19911015	JP 1990-49428	19900302 <--
PRAI	JP 1989-92678	A1	19890412		
	JP 1989-302359	A1	19891112		
	JP 1989-302360	A1	19891112		

AB The title method involves coating polymer moldings with metal salts, metal alkoxides, or their partial hydrolyzates and heating at >500° to form metals and/or metal oxides. Stirring a mixture of Si(OEt)4 178, EtOH 260, H2O 165, and HCl 2.1 g for 24 h at 25° and adding 100 g acetone gave a solution which was coated on a 2-mm acrylic polymer sheet, dried 30 s at 80°, and passed at 18 m/min over a gas flame at 650° to give a sheet having a coating of Si oxide and showing surface hardness 7H, resistance to cigarette burns 30 s, and transparency 91%, vs. H, 2, and 93, resp. for the uncoated polymer sheet.

L6 ANSWER 26 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1992:32640 CAPLUS

DN 116:32640

TI Manufacture of metal oxide ion conductors

IN Usami, Akira; Uchikawa, Hidefusa

PA Mitsubishi Electric Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02221106	A	19900904	JP 1989-42482	19890221 <--
PRAI	JP 1989-42482		19890221		

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OS MARPAT 116:32640
AB The conductors are prepared by hydrolysis of metal alkoxides and/or metal β-diketonates in solvents in the presence of alkali metal salts and/or metal halides. The conductors are useful as batteries, sensors, memory devices, etc.

L6 ANSWER 27 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1991:48309 CAPLUS
DN 114:48309
TI Manufacture of high-strength silicon nitride-based ceramics
IN Nishioka, Takao; Kukidaira, Hiroshi; Matsunuma, Kenji; Takano, Yoshe; Higuchi, Matsuo; Honda, Masaaki; Miyake, Masaya
PA Sumitomo Electric Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02124770	A	19900514	JP 1989-129357	19890522 <--
	EP 399107	A1	19901128	EP 1989-124096	19891228 <--
	EP 399107	B1	19960320		
	R: DE, FR, GB, SE				
	US 5234642	A	19930810	US 1989-459398	19891229 <--
	US 5328876	A	19940712	US 1992-995703	19921223 <--
PRAI	JP 1988-172390	A1	19880711		
	JP 1989-129356	A	19890522		
	JP 1989-129357	A	19890522		
	US 1989-459398	A1	19891229		

AB A powdered Si3N4 raw material and a sintering aid (an organic metal salt, metal oxide, nitride, and/or carbide) are dispersed in surfactant-containing solns. by using ultrasonic waves, the prepared suspensions are mixed and dried, and the obtained powder is molded and sintered at 1600-2200° in a nonoxidizing atmospheric, especially N at 10-2000 atmospheric Preferably, the organic salt is a stearate, acetylacetate, octylate, and/or naphthenate of Y and/or Al, the oxide is Al2O3 and Y2O3, and the nitride is AlN. The invention ceramics had bending strength >140 kg/mm2.

L6 ANSWER 28 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1990:163860 CAPLUS
DN 112:163860
TI Proton-conductive amorphous materials, and their manufacture
IN Satake, Takeshi; Yoneda, Tadahiro
PA Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01192742	A	19890802	JP 1988-16833	19880129 <--
PRAI	JP 1988-16833		19880129		

AB The title materials are amorphous metal oxides containing highly dispersed hydrated heteropoly acids and/or their salts. The oxides comprise ≥1 oxides of Group III, IV, and V elements, especially of B, Al, Si, Ge, Sn, P, Ti, and Zr. The materials are prepared by mixing a solution of heteropoly acid or its salt with a solution of a metal compound containing hydrolyzable and/or condensable groups, or their derivs., and hydrolyzing and/or condensing the compound Preferably, the compound is RmMRn1XpXq1 (M = metal; X = O or SO4; X1 = NH4 or organoamino group; R = H or (substituted) saturated or unsatd. C≤10-aliphatic group; R1 = halogen, NO3, OH, acyloxy,

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or alkoxy group; m, p, and q = 0 or pos. integer, n = integer >0, and 2p + m + n - Q equals the valence of M. The materials have high conductivity, may be made into thin films, and are useful as solid electrolytes for electrochem. devices.

L6 ANSWER 29 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:502126 CAPLUS
DN 111:102126
TI Catalyst support
IN Izumi, Keiji; Deguchi, Takenori; Murakami, Megumi; Tanaka, Hidetoshi
PA Nisshin Steel Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01075040	A	19890320	JP 1987-232038	19870918 <--
JP 2541828	B2	19961009		
PRAI JP 1987-232038		19870918		

AB The title catalyst support consists of a metal base coated with Al2O3 on ≥1 side of the metal surface, where the metal surface is precoated with a metal oxide film made from 1 or ≥2 metal alkoxide or metal alkylacetonate salts. The metal in the alkoxide or alkylacetonate is Al, Zr, Ti, Si, Y or Ce. The metal base may be stainless steel, heat-resistant steel or Ni plate. The intermediate metal oxide film improves bonding between the base metal and the Al2O3 layer. Thus, a stainless steel foil (50 μm thick) was dipped in an alc. solution of acetylacetonate Zr, heated 200° for 10 min to form 0.05 μm thick ZrO2 film, then coated with γ-Al2O3. Adherence of the γ-Al2O3 layer was better than a control without ZrO2 film. Heat resistance of the support also was improved.

L6 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:501883 CAPLUS
DN 111:101883
TI Sol-gel process for the incorporation of transition metals within ceramic oxide matrixes, and the preparation of gamma-alumina and lithium aluminum silicate-like ceramics incorporating desired metal oxides
IN Covino, Josephine
PA United States Dept. of the Navy, USA
SO Statutory Invent. Regist., 7 pp.
CODEN: SRXXEV
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 626	H	19890404	US 1986-892967	19860804 <--
PRAI US 1986-892967		19860804		

AB The title process comprises (a) forming a solution of hydrolyzable transition metal organic compds. in an organic solvent, (b) lowering the pH of the solution with an acid to a level that allows growth of metal oxide chains and networks through hydrolysis and condensation reactions without the formation of colloidal SiO2, (c) initiating a hydrolytic polycondensation reaction by adding water to produce a gel containing 3-dimensionally crosslinked polymer having a controlled, crosslinked matrix, and (d) heating the gel to substantially remove organic and free liquid components, and to convert the gel to a particulate oxide product. γ-Al2O3 is prepared by adding concentrated HCl to a solution of Al(OPr)3 in distilled water to lower the pH to .apprx.0.7, diluting the solution

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with MeOH, sonicating the solution for .apprx.10 min, and dehydrating the solution to obtain crystalline ceramic oxide powder. Li aluminosilicate-like products are prepared by hydrolyzing a solution of hydrolyzable compds. of the metals in an organic solvent, with selection of the pH of the solution so that hydrolysis and polymerization proceeds without the formation of colloidal oxides, which detach from the chains and networks, but are desired to remain therein to form the product. This method is suitable for controlling particle size distribution and crystal structure, so as to produce tailored oxides with specific particle morphol., for near-zero expansion-type optical ceramics, and for oxide glass-ceramics with ultralow expansivity, low He permeability and thermal stability over a wide temperature range, for application in ultraprecision measurement equipment.

This method was applied to prepare a Li aluminosilicate material containing Si 28.49, Al 14.7, Li 1.89, Zn 1.24, Mg 0.66, Ti 1.52, and Zr 1.55%, and the balance O, with .apprx.72% of the particles >50 μm.

L6 ANSWER 31 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:204182 CAPLUS
DN 110:204182
TI Composition and process for preparing compound metal oxides
IN Tsunashima, Makoto; Uchida, Hiroto; Sakai, Kazuhiro; Miyauchi, Masato
PA Mitsubishi Metal Corp., Japan
SO Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 301591	A2	19890201	EP 1988-112380	19880729 <--
	EP 301591	A3	19900516		
	EP 301591	B1	19920930		
	R: BE, DE, FR, GB, IT, NL, SE				
	JP 01037420	A	19890208	JP 1987-190203	19870731 <--
	JP 01037422	A	19890208	JP 1987-190205	19870731 <--
	JP 01062474	A	19890308	JP 1987-216514	19870901 <--
	JP 01192724	A	19890802	JP 1988-17305	19880129 <--
	US 5024991	A	19910618	US 1988-226999	19880801 <--
PRAI	JP 1987-190203	A	19870731		
	JP 1987-190205	A	19870731		
	JP 1987-216514	A	19870901		
	JP 1988-17305	A	19880129		

OS MARPAT 110:204182
AB A composition for forming a compound metal oxide of a specific composition and a process for preparing the compound oxide are described. The composition comprises an alkoxide of a rare earth metal, an alkoxide of an alkaline earth metal and an organic acid salt of an organic complex of Cu. The process comprises refluxing the composition for reaction and thermally decomposing the reaction product. Also a film-forming composition for forming a thin layer of a compound metal oxide is described. The film-forming compound comprises the above-mentioned composition plus a film-forming resin and an organic solvent. Critical temps. for the superconductor products were as high as 110 K.

L6 ANSWER 32 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:194785 CAPLUS
DN 110:194785
TI Metal oxide coating solutions
IN Tanitsu, Katsuya; Nakayama, Muneo; Sato, Yoshimi
PA Tokyo Ohka Kogyo Co., Ltd., Japan

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SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63258959	A	19881026	JP 1987-556	19870107 <--
	JP 2729373	B2	19980318		
	US 4908065	A	19900313	US 1988-141075	19880105 <--
	US 4960618	A	19901002	US 1990-461873	19900108 <--
PRAI	JP 1987-556	A	19870107		
	US 1988-141075	A3	19880105		

AB Solns. for coating metal oxides on substrates, such as glass, ceramics, metals, plastics, contain β-diketones, aprotic polar solvents, and ≥1 substance selected from β-diketone complex-forming elements, their salts, and their alkoxide hydrolyzates. Coating solns. containing β-diketone metal complexes and aprotic polar solvents are also used. Thus, a 1.1-mm glass plate was immersed in a coating solution comprising ethyl acetoacetatoaluminum diisopropylate 15, acetylacetone 3, and N-methyl-2-pyrrolidone 25 parts, removed from the solution at 10 cm/min, dried with air at 140° for 15 min, then baked at 500° for 60 min to give a 80-nm Al2O3 coating without pinholes.

L6 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:194725 CAPLUS
DN 110:194725
TI Metal oxide-coated organic pigments for coatings with improved rheology
IN Bugnon, Philippe; Grubenmann, Arnold; Medinger, Bernhard; Schaefle, Jean
PA Ciba-Geigy A.-G., Switz.
SO Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 296111	A2	19881221	EP 1988-810386	19880610 <--
	EP 296111	A3	19910403		
	EP 296111	B1	19931124		
	R: CH, DE, FR, GB, IT, LI				
	US 4880472	A	19891114	US 1988-202865	19880606 <--
	JP 01016871	A	19890120	JP 1988-147046	19880616 <--
	JP 2515377	B2	19960710		
PRAI	CH 1987-2256	A	19870616		

OS MARPAT 110:194725
AB The title pigments, bearing tightly bonded, penetrating coatings of SiO2 or Al2O3 crosslinked via free OH groups by hydrolyzed chelates of 1,3-dicarbonyl compds. with Ti, Sn, or Zr or Group IVA or IVB metal alkoxides, have good gloss and are useful in printing inks, coatings, and polymers. C.I. Pigment Yellow 110 (20 g) was in 20 mL iso-PrOH was combined over 30 min with 3.55 g Ti(OPr-iso)4 in 50 mL iso-PrOH, and, after 1 h, with 10 mL 2% NaOPr-iso solution, stirred for 3 h at 70°, mixed with 300 mL H2O, heated to 78°, mixed over 1 h with 1N NaOH (to give pH 9.5), 3.8 g Na silicate (26.5% SiO2) in 100 mL H2O and then with 20 mL 0.2M H2SO4 and 100 mLH2O, and stirred for 2 h. Mixing 9% this pigment with a 40.5% dispersion of Setal 84 gave a coating composition with viscosity 885 and 193 mPa-s at shear rate 10 and 100/s, resp., vs. 1320 and 297, resp., with uncoated pigment.

L6 ANSWER 34 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:146318 CAPLUS
DN 110:146318

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p18

TI Single-layer or multilayer ceramic coatings from silicate esters and metal oxides
IN Haluska, Loren A.; Michael, Keith W.; Tarhay, Leo
PA Dow Corning Corp., USA
SO U.S., 14 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 4753856	A	19880628	US 1987-217	19870102	<--
	CA 1329739	C	19940524	CA 1987-554210	19871214	<--
	JP 63178532	A	19880722	JP 1987-330346	19871228	<--
	JP 06042479	B	19940601			
	EP 274274	A2	19880713	EP 1987-311481	19871229	<--
	EP 274274	A3	19881207			
	EP 274274	B1	19940323			
	R: DE, FR, GB, IT, NL					
	CN 87107417	A	19880817	CN 1987-107417	19871229	<--
	CN 1012494	B	19910501			
	ES 2005496	A6	19890301	ES 1987-3757	19871230	<--
	US 4997482	A	19910305	US 1989-411753	19890925	<--
PRAI	US 1987-217	A	19870102			
	US 1988-167228	B1	19880311			

OS MARPAT 110:146318
AB Methods for preparing the title coatings are described in which a preceramic mixture comprising a partially or completely hydrolyzed silicate ester and a metal oxide precursor selected from Al alkoxides, Ti alkoxides, and/or Zr alkoxides in a solvent is applied to a substrate and ceramified by heating at 200-1000°. Addnl. ceramic coatings containing Si-C, Si-N, or Si-C-N can be applied over the ceramified SiO2/metal oxide coating (e.g., using chemical vapor deposition or plasma-enhanced chemical vapor deposition). Methods of forming a Si-N-containing coating, entailing coating a substrate with a solution containing a preceramic polymer produced by combining a cyclic silazane or a mixture of cyclic silazanes with a halodisilane or halosilane, are described. Application as planarizing coatings for electronic devices is indicated.

L6 ANSWER 35 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:86990 CAPLUS
DN 110:86990
TI Preparation of multilayer ceramic coatings containing metal oxides for protection of electronic devices
IN Haluska, Loren Andrew; Michael, Keith Winton; Tarhay, Leo
PA Dow Corning Corp., USA
SO Eur. Pat. Appl., 44 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	EP 270263	A2	19880608	EP 1987-309966	19871111	<--
	EP 270263	A3	19891213			
	EP 270263	B1	19940413			
	R: DE, FR, GB, IT, NL					
	US 4753855	A	19880628	US 1986-938677	19861204	<--
	CA 1329736	C	19940524	CA 1987-549574	19871019	<--
	ES 2010233	A6	19891101	ES 1987-3427	19871130	<--
	JP 63152131	A	19880624	JP 1987-304654	19871203	<--
	JP 06046631	B	19940615			
	US 4808653	A	19890228	US 1988-166587	19880310	<--

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PRAI US 1986-938677 A 19861204
AB The title prepns. entail the use of preceramic material solns., prepared by diluting a mixture of a H silsesquioxane resin and a metal oxide precursor selected from Al alkoxides, Ti alkoxides, and Zr alkoxides in a solvent, which are applied to a substrate and ceramified by heating to 200-1000° to produce a SiO2/metal-oxide coating. Addnl. coatings, comprising Si-C, Si-N, or Si-C-N, may be applied over the resulting coating, and coatings produced by chemical vapor deposition or plasma-enhanced chemical vapor deposition may also be applied. Application in the formation of planarizing, passivating, and protective coatings for electronic devices is indicated.

L6 ANSWER 36 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1988:438722 CAPLUS
DN 109:38722
TI Characterization of microcomposite polyimide films
AU Rancourt, J. D.; Porta, G. M.; Taylor, L. T.
CS Dep. Chem., Virginia Polytech. Inst. and State Univ., Blacksburg, VA, 24061-0212, USA
SO International SAMPE Symposium and Exhibition (1988), 33(Mater.--Pathway Future), 1121-33
CODEN: ISSEEG; ISSN: 0891-0138
DT Journal
LA English
AB Films containing a soluble metal salt or a metal complex and a polyamic acid prepared from 3,3',4,4'-benzophenonetetracarboxylic dianhydride or 4,4'-bis(3,4-dicarboxyphenoxy)diphenyl sulfide dianhydride and 4,4'-oxydianiline were cast from N,N-dimethylacetamide and cured at high temps. to form surface-conductive polyimide films. Elec. conductivity was due to a nearly continuous layer of metal oxide or metal just beneath the surface of the films. The bulk of the polyimide film contained residual metal salts or complexes, but at a concentration below the percolation threshold for conduction.

L6 ANSWER 37 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1987:35522 CAPLUS
DN 106:35522
TI Spray-dried inorganic oxides with high surface area and pore volume from nonaqueous gels or solutions
IN Marsh, Gary Barton; Fanelli, Anthony Joseph; Armor, John Nelson; Zambri, Patrick Michael
PA Allied Corp., USA
SO Eur. Pat. Appl., 47 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 199930	A2	19861105	EP 1986-102830	19860304 <--
	EP 199930	A3	19881026		
	EP 199930	B1	19911121		
	R: DE, FR, GB, IT				
	US 4649037	A	19870310	US 1985-717931	19850329 <--
	CA 1237870	A1	19880614	CA 1986-503206	19860304 <--
	AU 8654941	A	19861002	AU 1986-54941	19860320 <--
	JP 61232204	A	19861016	JP 1986-72372	19860329 <--
	US 4713233	A	19871215	US 1986-910929	19860924 <--
PRAI	US 1985-717931	A	19850329		

AB Metal oxide powders of high surface area (SA) and pore volume (PV) (xerogel powders) are prepared by spray-drying a mixture of ≥1 hydrolyzable metal compound, e.g., a metal alkoxide, with an organic solvent and enough water to give at least partial hydrolysis. The

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resulting powders have properties similar to those of aerogels. MgO powder was prepared from Mg(OEt)2 in MeOH and distilled water by stirring to give a suspension, which was spray-dried to give MgO of SA 8.9 m2/g, PV 0.34 cm3/g, particle size 50% ≤0.78 μ spherical diameter, and d. 2.1 g/cm3.

L6 ANSWER 38 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1986:536905 CAPLUS
DN 105:136905
TI Synthesis gas conversion using ruthenium-promoted cobalt catalyst prepared by nonaqueous impregnation.
IN Beuther, Harold; Kobylinski, Thaddeus P.; Kibby, Charles L.; Pannell, Richard B.
PA USA
SO U.S., 7 pp. Cont.-in-part of U.S. Ser. No. 310,969, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4585798	A	19860429	US 1984-635911	19840730 <--
	US 4413064	A	19831101	US 1981-310977	19811013 <--
	US 4493905	A	19850115	US 1983-540662	19831011 <--
	US 4613624	A	19860923	US 1985-755657	19850426 <--
	US 4605679	A	19860812	US 1985-734188	19850515 <--
	US 4605676	A	19860812	US 1985-734189	19850515 <--
	AU 8543791	A	19860206	AU 1985-43791	19850618 <--
	AU 581896	B2	19890309		
	ZA 8505316	A	19860326	ZA 1985-5316	19850715 <--
	US 4729981	A	19880308	US 1986-869705	19860602 <--
	US 4670414	A	19870602	US 1986-876730	19860620 <--
	US 4717702	A	19880105	US 1986-876458	19860620 <--
	EP 253924	A1	19880127	EP 1986-201283	19860721 <--
	R: AT, BE, DE, FR, GB, IT, NL, SE				
	AU 591151	B2	19891130	AU 1986-60394	19860721 <--
	AU 8660394	A	19880128		
	ZA 8605460	A	19870225	ZA 1986-5460	19860722 <--
	BR 8603497	A	19880315	BR 1986-3497	19860724 <--
PRAI	US 1981-310969	A2	19811013		
	US 1981-310977	A3	19811013		
	US 1983-540662	A2	19831011		
	US 1984-635911	A2	19840730		
	US 1985-755657	A3	19850426		
	US 1985-734188	A3	19850515		
	US 1985-734189	A3	19850515		

OS CASREACT 105:136905
AB Liquid hydrocarbons are prepared from synthesis gas using an Al2O3-supported catalyst containing 5-30 weight % Co with a Co-Ru mol ratio 200-3400:1, prepared by impregnation of the Al2O3 with a nonaq. organic solution of the precursor salts. The impregnated catalysts, which can also contain 0.1-5 weight % of a promoter metal oxide (chosen from Ca2O3, ThO2, MgO, and rare earth oxides), are activated by a sequential procedure consisting of reduction in H, oxidation, and a 2nd H reduction A catalyst containing 20.00:1.00:0.05 (weight % ratio) Co-La2O3-Ru/Al2O3, prepared from Co(NO3)2, La(NO3)5, and Ru acetylacetonate in acetone, was activated by the 3-step process and tested in H-CO at 1 atm, resulting in a CO conversion of 145 cm3/g-h, compared with 159 cm3/g-h for a calalyst containing 0.10 weight % Ru.

L6 ANSWER 39 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1986:471376 CAPLUS
DN 105:71376

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TI Microcrystalline metal oxides
IN David, Lawrence D.
PA Celanese Corp. , USA
SO U.S., 8 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4588575	A	19860513	US 1984-667303	19841101 <--
	US 4588576	A	19860513	US 1985-765691	19850815 <--
PRAI	US 1984-667303	A3	19841101		

OS MARPAT 105:71376
AB A process is claimed for the production of a microcryst. metal oxide powder which comprises (1) forming a homogeneous solvent solution containing a solute of ≥1 metal-organic compds. (e.g., metal β-diketonates, metal carboxylate salts, metal alkoxides, or α-hydroxycarboxylate metal salts such as metal citrates, metal tartrates, metal malates, metal lactates, or metal glycolates); (2) subjecting the solution to ultrasonic wave energy (e.g., at 40-2000 kHz) while treating it to cause formation of a gelled solution; (3) removing solvent medium from the gelled solution to provide a residual mass of precursor solids; and (4) pyrolyzing (e.g., at 300-900°) the precursor solids in the presence of O2 to form a metal oxide composition having an average particle size ≤1000 Å. Thus, a metastable tetragonal ZrO2 powder (average particle diameter 950-1000 Å, crystallite size .apprx.80-140 Å) containing Y 3.5 mol% as a stabilizing agent was prepared from Zr acetylacetonate (acac) and Y acac. Mg acac, Ca acac, Sr acac, Yb acac, Dy acac, and Ce acac produced similar results when used as stabilizing agents in forming metastable ZrO2 powders. Application of the process to the preparation of ferrimagnetic spinels having the general formula MFe2O4, where M can be ≥1 of Mn, Fe, Co, Ni, Cu, Zn, Cd, Mg, Ba, and/or Sr are also claimed, and prepns. of Ni0.7Zn0.3Fe2O4 powders from Fe acac with Ni acac and Zn acac, as well as from Fe citrate with Ni citrate and Zn citrate are described. The powders are useful in the manufacture of coating compns., fine-grained ceramics, cermets etc.

L6 ANSWER 40 OF 40 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1976:125964 CAPLUS
DN 84:125964
TI Finely divided metal oxides and their use in preparing sintered moldings
IN Hamling, Bernard H.; Namann, Alfred W.
PA Union Carbide Corp., USA
SO Ger. Offen., 61 pp. Addn to Ger. Offen. 2,123,045.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2527148	A1	19760108	DE 1975-2527148	19750618 <--
	DE 2527148	B2	19770602		
	BE 830376	A4	19751218	BE 1975-157450	19750618 <--
	SE 7507012	A	19751222	SE 1975-7012	19750618 <--
	NL 7507276	A	19751223	NL 1975-7276	19750618 <--
	FR 2275422	A2	19760116	FR 1975-19141	19750618 <--
	FR 2275422	B2	19790119		
	JP 51016299	A	19760209	JP 1975-73276	19750618 <--
	AU 7582207	A	19761223	AU 1975-82207	19750618 <--
	AU 501910	B2	19790705		
	IL 47514	A	19790131	IL 1975-47514	19750618 <--
	CH 609021	A5	19790215	CH 1975-7946	19750618 <--

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PRAI US 1974-481321        A     19740620
     IL 1971-36818         A0    19710540
AB   Finely divided metal oxides are manufactured by treating a carbohydrate with
     ≥1 metal compound, calcining the mixture to produce an ash consisting
     of a friable agglomerate of submicron metal oxide
     particles, and grinding the agglomerate to particles of size <1 μ.
     Thus, wood pulp sheets were saturated with a ZrOCl2-YCl3 solution containing
ZrO2
     250, Y2O3-rare earth oxide mixture 20, and Cl- 160 g/l., freed of excess
     solution, and burned 1 min at .apprx.982° in a gas oven.  The ash
     consisted of loosely agglomerated crystallites of stabilized ZrO2 having
     particle size 200-500 Å, and was powdered and then ball milled to give
     the desired particles.  Pelletizing and sintering at 1465° gave
     articles with d. 5.9-6 g/cm3 compared to 3.9 and 5.3 for 2 com. products.


=> d his

     (FILE 'HOME' ENTERED AT 15:50:58 ON 01 FEB 2007)

     FILE 'REGISTRY' ENTERED AT 15:51:34 ON 01 FEB 2007
L1             STRUCTURE UPLOADED
L2           50 S L1
L3        31098 S L1 FULL

     FILE 'CAPLUS' ENTERED AT 15:52:14 ON 01 FEB 2007
L4        29636 S L3 AND PY<=2002
L5         2325 S L4 AND SALTS
L6           40 S L5 AND METAL OXIDE

=> s l4 and metal complexes of beta-diketone#
       1710547 METAL
        734751 COMPLEXES
       1432549 BETA
         21335 DIKETONE#
            34 METAL COMPLEXES OF BETA-DIKETONE#
                 (METAL(W)COMPLEXES(1W)BETA(W)DIKETONE#)
L7          15 L4 AND METAL COMPLEXES OF BETA-DIKETONE#

=> d 1-15 bib abs

L7   ANSWER 1 OF 15  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   1987:440612  CAPLUS
DN   107:40612
TI   Method for neutralization of organophilic acidic compounds
IN   Brown, Sterling Bruce; Yates, John Bennie III
PA   General Electric Co., USA
SO   PCT Int. Appl., 16 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   WO 8700520           A1     19870129    WO 1986-US1388          19860702 <--
         W:  JP
         RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE
     EP 226635            A1     19870701    EP 1986-904599          19860702 <--
     EP 226635            B1     19890906
         R:  DE, FR, GB, IT, NL
     JP 63500450          T      19880218    JP 1986-503730          19860702 <--
PRAI US 1985-759198       A      19850726
     WO 1986-US1388       W      19860702
AB   Salts of organophilic acidic compds., e.g., ionomers, are prepared by
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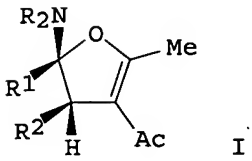
neutralization in the melt or in a nonpolar organic liquid with a metal salt of a β-diketone, e.g., 2,4-pentanedione. Refluxing 100 g 0.5% maleic anhydride-grafted polyethylene in 2250 mL PhMe with 1.5 g Zn 2,4-pentanedionate hydrate in 100 mL PhMe gave a Zn salt of the polymer as an opaque white precipitate

L7 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1984:519881 CAPLUS
DN 101:119881
TI LAMMA mass spectra of β-diketone, bis(benzoylacetone)ethylenediimine and bis(salicylidene)ethylenediimine complexes of some transition metals
AU Rohly, Kenneth E.; Heffren, John S.; Douglas, Bodie E.
CS Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA
SO Organic Mass Spectrometry (1984), 19(8), 398-402
CODEN: ORMSBG; ISSN: 0030-493X
DT Journal
LA English
AB Complexes of 2,4-pentanedione (Hacac), [Cu(acac)2], [VO(acac)2] and [Co(acac)3], and the Cr(III) derivative of 3-methyl-2,4-pentanedione (Hmeac), [Cr(meac)3], the ligands bis(benzoylacetone)ethylenediimine and bis(salicylidene)ethylenediimine, and their Co(II), Ni(II) and Cu(II) chelates were analyzed by laser desorption mass spectrometry (LAMMA) and compared to electron impact results. The pos. ion LAMMA spectra generally reveal mostly small fragments, although metal cationization peaks are seen for most complexes. Neg. ion LAMMA produce C clusters and some structurally important fragments.

L7 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1984:67596 CAPLUS
DN 100:67596
TI The photoreaction of amines or enamines with metal complexes of .beta.-diketones
AU Sato, Tadashi; Watanabe, Kazuhiro
CS Dep. Appl. Chem., Waseda Univ., Tokyo, 160, Japan
SO Chemistry Letters (1983), (10), 1499-502
CODEN: CMLTAG; ISSN: 0366-7022
DT Journal
LA English
OS CASREACT 100:67596
GI



I

AB Irradiation of amines R2NCHR1CH2R2 (R = Pr, Bu; R1 = H;R2 = Me, Et) with Co(acac)3 or other metal β-diketonates gave trans-I. Similarly, photoreaction of enamines R2NCR1:CHR2 [R = Pr, Et, Bu; R2 = (CH2)5; R1 = H; R2 = Pr, Et, Me; R1R2 = (CH2)4] with Co(acac)3 gave I. The mechanisms of these reactions involve electron transfer.

L7 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1983:186215 CAPLUS
DN 98:186215
TI Size-exclusion chromatographic behavior of metal complexes of .beta.-diketones
AU Saito, Masanori; Kuroda, Rokuro; Shibukawa, Masami
CS Fac. Eng., Univ. Chiba, Yayoi, 260, Japan

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SO Analytical Chemistry (1983), 55(7), 1025-9
CODEN: ANCHAM; ISSN: 0003-2700
DT Journal
LA English
AB The size-exclusion chromatog. behavior of 6 β-diketones and their Be(II) and Cr(III) complexes in poly(vinyl acetate) gel-organic solvent systems was studied on the basis of the A. G. Ogston (1958) and T. C. Laurent (1964) models. The relation between the distribution coefficient and the molar volume depends strongly on the type of substituent in the β-diketone and in the eluent and cannot be explained merely by the size exclusion mechanism for all the systems studied. However, the linear relations between (-ln Kav)1/2 and Vm1/3 in the Fractogel PVA 2000-p-dioxane system allow the effective size of a given metal chelate dissolved in p-dioxane to be estimated from Kav values of related free ligand and metal chelates.

L7 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1982:414457 CAPLUS
DN 97:14457
TI Desorption ionization mass spectrometry: secondary ion and laser desorption mass spectra of transition-metal complexes of .beta.-diketones
AU Pierce, Janelle L.; Busch, Kenneth L.; Cooks, R. Graham; Walton, Richard A.
CS Dep. Chem., Purdue Univ., West Lafayette, IN, 47907, USA
SO Inorganic Chemistry (1982), 21(7), 2597-602
CODEN: INOCAJ; ISSN: 0020-1669
DT Journal
LA English
AB Studies on the secondary ion mass spectra (SIMS) of β-diketonate complexes of the transition metals were carried out with NH4Cl and NaCl as room-temperature matrices. Those systems studied included the acetylacetonate(acac) derivs. M(acac)3 (M = Fe, Cr, Mn, or Co), M(acac)2 (M = Ni or Cu), VO(acac)2, and MoO2(acac)2 as well as Cr(tfac)3 and Cr(btac)3, which contain the unsym. CF3COCHCOCH3- (tfac) and PhCOCHCOCF3- (btac) ligands. Of particular interest has been the production of bimetallic ions, including cationization, in a formal sense, of M(acac)3 to produce the structurally informative secondary ions [C + M(acac)3]+ (C represents the ''cationizing agent''). In addition to cationization by Na (from the NaCl matrix) and Ag (from the Ag support), self-cationization and cationization by another 1st-row transition metal were also observed Mixts. of tris(acetylacetonates) give [C + M(acac)3]+ ions in low abundances in all cases except Cr(acac)3 + Mn(acac)3. In addition, both mixts. of different β-diketonate complexes and mixts. containing a β-diketonate complex with a metal chloride give rise to metal-ligand exchange during the course of the SIMS experiment The implications of these latter findings for the use of SIMS in characterizing metal complexes of importance in heterogeneous catalysis are discussed. Laser desorption, like SIMS, was observed to give rise to bimetallic ions, including silver ion cationization of the neutral β-diketonate complex. Some of these species were characterized by mass spectrometry/mass spectrometry through collision-induced dissociation at 7 keV. Consideration is given to the relationship between the mechanisms of SIMS and laser desorption mass spectrometry as applied to the characterization of coordination complexes.

L7 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1974:417394 CAPLUS
DN 81:17394
TI Synergism in solvent extraction of tetravalent metal ions. Formation of synergistic adducts
AU Bok, L. D. C.; Wessels, G. F. S.; Leipoldt, J. G.
CS Dep. Chem., Univ. Orange Free State, Bloemfontein, S. Afr.
SO Zeitschrift fuer Anorganische und Allgemeine Chemie (1974), 404(1), 76-80

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CODEN: ZAACAB; ISSN: 0044-2313
DT Journal
LA English
AB The β-diketone complexes ML4 (M = Zr, Hf, Th, U; HL = acetylacetone, dibenzoylmethane, thenoyltriflouroacetone, hexafluoroacetylacetone) were used to prepare 1:1 adducts with (C8H17)3PO, Ph3PO, (PhO)3PO, and (BuO)3PO. No adducts were obtained for ML4 (M = Zr, Hf, U), whereas ThL4 formed 1:1 adducts only for strongly acid HL, i.e. the above latter three β-diketones. The adduct formation is influenced by the acid strength of the β-diketone, the basicity of the P compound, the ionic radii and the electron configuration of the metal.

L7 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1973:42368 CAPLUS
DN 78:42368
TI Hydrogen rearrangements in the mass spectra of some metal complexes of .beta.-diketones
AU Lacey, M. J.; Macdonald, C. G.; Shannon, J. S.
CS Sch. Chem., Univ. New South Wales, Kensington, Australia
SO Australian Journal of Chemistry (1972), 25(12), 2559-65
CODEN: AJCHAS; ISSN: 0004-9425
DT Journal
LA English
AB H rearrangements in the mass spectra of copper (II), nickel (II), and oxovanadium (IV) complexes of pentane-2,4-dione, 3-methylpentane-2,4-dione, and 1,3-diphenylpropane-1,3-dione were studied by D labeling. The results were interpreted in terms of stepwise reactions which may be preceded by competitive H-exchange processes.

L7 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1969:81534 CAPLUS
DN 70:81534
TI Proton magnetic resonance studies of some metal complexes of .beta.-diketones and organophosphorus compounds in carbon tetrachloride
AU Wang, Sung Mao; Li, Norman C.
CS Duquesne Univ., Pittsburgh, PA, USA
SO Journal of Inorganic and Nuclear Chemistry (1969), 31(3), 755-63
CODEN: JINCAO; ISSN: 0022-1902
DT Journal
LA English
AB Proton magnetic resonance evidence in CCl4 medium is given for the formation of the keto hydrates of hexafluoroacetylacetone (I), thenoyltrifluoroacetone (II), benzoyl-trifluoroacetone (III), and trifluoroacetylacetone (IV). The keto hydrates of I and II were isolated in the crystalline state and analyzed, whereas the keto hydrates of III and IV have not been isolated and are more difficult to obtain. No keto hydrate of acetylacetone in CCl4 is formed. The strength of electron-release increases in the order: trifluoromethyl group in I, thenoyl group in II, Ph group in III, and Me group in IV, and this order is paralleled by the decrease in the ability to form keto hydrates. Since no ternary Zn complex with the phosphine oxide exists in the acetylacetone system, no synergism or destruction of synergism can occur, and this is in agreement with data obtained from solvent extraction studies using 65Zn.

L7 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1968:480997 CAPLUS
DN 69:80997
TI Determination of the stability of some europium β-diketonates in aqueous solutions
AU Berlyand, A. S.; Byrke, A. I.; Martynenko, L. I.
CS Mosk. Gos. Univ., Moscow, USSR
SO Zhurnal Neorganicheskoi Khimii (1968), 13(8), 2106-10
CODEN: ZNOKAQ; ISSN: 0044-457X

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DT Journal
LA Russian
AB Distribution of Eu β-diketonates between H2O and either C6H6 or CHCl3 was investigated at 25° as a function of concns. and pH. Detailed procedure and calcns. are described for the dibenzoylmethane. No polymerization or hydrolysis were detected when the Eu concentration was 5 + 10-5 to 2 + 10-4M (in the aqueous phase). The overall formation consts. (β3), in the aqueous phase, were: dibenzoylmethane 5.0 + 1019; selenoylacetone, 7.58 + 1017; selenenoylbenzoylmethane, 1.19 + 1016, and benzoylacetone 4.20 + 1019. β1's and β2's were also given. A correlation has been observed between the stability consts. of the β-diketonates of several rare earth ions and the observed C-O frequencies in their ir spectra.

L7 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1966:452437 CAPLUS
DN 65:52437
OREF 65:9810c-f
TI Rate of chelate extraction
AU Zolotov, Yu. A.
SO Khim. Osnovy Ekstraktsion. Metoda Razdeleniya Elementov, Akad. Nauk SSSR, Inst. Geokhim. i Analit. Khim. (1966) 44-59
DT Journal
LA Russian
AB cf. CA 63, 3677a. The rate of chelate extraction was studied as a function of the metal ion, chelating agent (HA), metal and HA concns., pH, and extracting solvent. The metal was present initially in the aqueous phase, and HA initially in the organic phase. The slow step of extraction was the formation of the chelate. The systems studied were (metal, HA, pH, and solvents given, resp.): Fe3+, Ac2CH2, 1.3-1.4, CHCl3, CCl4; UO2++, Ac2CH2, 6.3-7.1, CHCl3, CCl4, C6H6; UO2++, BzAcCH2, 5.8, CHCl3, C6H6; Fe3+, Bz2CH2, 3.7-5.6, CHCl3, CCl4, C6H6; Sc, Bz2CH2, 4.1-6.0, CHCl3, CCl4; UO2++, Bz2CH2 5.5, CHCl3, C6H6; Zn, thenoyltrifluoroacetone, 8, CCl4, C6H6; Co++, benzoylphenylhydroxylamine (I), 7.1-9.2, CHCl3, C6H6; Fe3+, I, 1.7-4.2, CHCl3, CCl4, C6H6; In, I, 3.3-6.0, CHCl3, C6H6; Zn, I, 8.0, CHCl3, C6H6; UO2++, 1-(2-pyridylazo)-2-naphthol, 7.0, CHCl3, CCl4. The metal concns. were 10-6-10-4M, while the HA concns. were usually 0.01-0.10M. The extraction rate depends on the metal, is generally slow for Bz2CH2 extraction, increases with increasing pH and HA concentration, and is greater for C6H6 and CCl4 than for CHCl3. The distribution coefficient of HA decreases in the order CHCl3 gt; C6H6 > CCl4, so that extraction is faster by solvents in which HA is less soluble The extraction rate curves for some Zn, Co, and UO2++ systems have maximum which are probably due to the formation, then decomposition, of coordinately unsatd. complexes. The maximum are more characteristic for CCl4 than for CHCl3, which correlates with the capacity of CCl4 and CHCl3 to extract coordinately unsatd. complexes.

L7 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1966:19950 CAPLUS
DN 64:19950
OREF 64:3715b-c
TI Catalysts for polymerization of formaldehyde
PA Chemische Werke Huels A.-G.
SO 4 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 1399196		19650514	FR 1964-978841	19640619 <--

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P27

PRAI DE 19630710

AB Polyformaldehyde is prepared by using metal carbonyl chelate as catalysts in organic solvents. For example, 0.2 g. of the chelate of acetylacetone with Al was dissolved in 4 l. of C6H6 with stirring. Then, 200 g. HCHO was distilled into the solution during 1 hr. Polymerization occurred instantaneously with evolution of heat. The reaction mixture was kept at 18° under N. After 30 min., the precipitate was filtered, washed with 2 l. C6H6, dried in air, and finally dried in vacuo. Thus, 195 g. of a snow-white polymer was obtained with a reduced viscosity of 1.25. A pressed sheet was flexible and elastic. Fe3+, Fe++, Ce3+, Cu++, Ni++, Mg++, Zn++, and Zr4+ acetyl acetonates, Cu benzoylacetonate, and cupric Et acetoacetate were also used.

L7 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1965:78310 CAPLUS
DN 62:78310
OREF 62:13875b-e
TI Vapor pressure-temperature data for various metal-β-diketone chelates
AU Berg, E. W.; Truemper, Joseph T.
CS Louisiana State Univ., Baton Rouge
SO Analytica Chimica Acta (1965), 32(3), 245-52
CODEN: ACACAM; ISSN: 0003-2670
DT Journal
LA English
AB cf. Berg, et al., CA 54, 16968e; 56, 9437f. The colors, m.ps., vapor pressure-temperature data, molar heats of sublimation, and sublimation temps. are given of 39 metal-β-diketone chelates (I) of Be++, Al3+, Mn++, Fe3+, Co++, Ni++, and Cu++ formed with acetylacetone (AA), acetyltrifluoroacetone (ATA), Ac-(Bz)CH2 (BA), benzoyltrifluoroacetone (BTA), 2-furoyltrifluoroacetone (FTA), or 2-thenoyltrifluoroacetone (TTA). ATA, BTA, and FTA were prepared by the method of Reid and Calvin (CA 44, 9921c). The I were prepared from aqueous 5% metal NO3- (or BeSO4) solution by adding 5 g. of NaOAc/100 ml. at once, mixing with an alc. ligand (AA-TTA) solution until reaction appeared complete, filtering, washing, recrystg., and drying the I. Vapor pressure-temperature data were obtained by using an isotenoscopic method described by Smith and Menzies (CA 5, 2326) and modified by Booth and Halbedel (CA 41, 1600g). The precision was ±1 mm. Hg; the plots of log vapor pressure of the I vs. 1/T are linear. The vapor pressures of Al(ATA)3, Be(AA)2, Be(ATA)2, and of Cu(ATA)2 are 100 at 205°, 431 at 264°, 656 at 231°, and 7 mm. at 185°, resp. The sublimation temps. (at which sublimate was first observed) were measured in a vertical vacuum sublimator at 0.25 mm. pressure, with the sample 5 mm. from the surface of the cold finger (20°) having a flat surface at 45° to the vertical. The m.ps. and sublimation temps. of Be(AA)2, Al(AA)3, Mn(AA)2, Fe(AA)3, Co(AA)2, Ni(AA)2, Cu(AA)2, and the same metal I analogs of ATA, BA, BTA, FTA, and TTA are 108°, 37°; 112, 74; <200 (decompose), 91; 179, 69; sublimes 120% 0.2 mm., 100; decompose 230, 185; decompose 230, 72; 112, 38; 117, 48; -, -; 115, 48; -, -; sublimes 150°, 0.5 mm., 111; 200, 55; 213, 105; 224-25, 152; decompose >140, 95; 222-24, 125; 181, 162; -, -; 197, 135; 143-44, 78; 173-74, 88; 129-130, -; 128-129, 89; 158, 55; 223-24, 98; 241, 130; 169-170, 71; 204-205, 95; 146-149, -; 207-208, 95; 215-220, 63; 293-296, 65; 227-228, 105; 169-170, 73; 203-205, 125; 177-179,-; 159-160, 135; 215, 69; 291-295, 70; and 242-243° 112°, resp.

L7 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1963:433656 CAPLUS
DN 59:33656
OREF 59:6015f-g
TI Steric effects in simple octahedral complexes
AU Graddon, D. P.; Schulz, R.; Watton, E. C.; Weeden, D. G.
CS Univ. N. S. Wales, Sydney
SO Nature (London, United Kingdom) (1963), 198(4887), 1299-1300

2/1/07 PNG P28

CODEN: NATUAS; ISSN: 0028-0836
DT Journal
LA Unavailable
AB The behavior of 2-MeC5H4N was compared with that of C5H5N and 4-MeC5H4N in simple octahedral complexes, e.g., Co(II) halide, Cu(II) halide, Zn β-diketone, Co(II) β-diketone, and Ni(II) β-diketone complexes. The steric effects varied greatly from 1 series of compds. to another.

L7 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1962:467479 CAPLUS
DN 57:67479
OREF 57:13398d-e
TI Polymerization of transition metal β-diketone chelates
AU Graddon, D. P.
CS Univ. New South Wales, Sydney
SO Nature (London, United Kingdom) (1962), 195, 891-2
CODEN: NATUAS; ISSN: 0028-0836
DT Journal
LA Unavailable
AB Bisbenzoylacetonato-Ni(II) is a green anhydrous compound, reacts with H2O, alcs., or heterocyclic bases to form bis-adducts; mean mol. wts.: 1195 in Ph3CH, 1100 in naphthalene, 1187 in Ph2NH, and 392 in camphor (theory for monomer 381, trimer 1143). Bis-(acetyl-acetonato)Co(II) is a plum-red powder, readily forms adducts with H2O, alcs., and heterocyclic bases; mean mol. wts.: 766 in Ph3CH, 816 in Ph2NH, and 257 in camphor (theory for monomer 257, trimer 771). Bis(acetylacetonato)oxo-V(IV) had mol. wts. of 523 in Ph3CH, 546 in biphenyl, 510 in Ph2NH, and 247 in camphor (theory for monomer 265, dimer 530). Bis(acetylacetonato)Zn(II) had mol. wts. of 285 in Ph3CH, 275 in biphenyl, and 281 in Ph2NH (theory for monomer 263.5).

L7 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1959:60717 CAPLUS
DN 53:60717
OREF 53:10972f-i
TI Spectral investigations of metal complexes of beta.-diketones. I. Nuclear magnetic resonance and ultraviolet spectra of acetylacetonates
AU Holm, R. H.; Cotton, F. A.
CS Massachusetts Inst. of Technol., Cambridge
SO Journal of the American Chemical Society (1958), 80, 5658-63
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA Unavailable
AB The nuclear resonances of the H bonded to the middle C of the chelate ring of metal-acetylacetone complexes, and of the analogous atom in acetylacetone were determined For acetylacetone and the Be, Zn, Al, Ga, In, Sc, Y, Co(III), Zr(IV), and Th(IV) complexes in CCl4 the mean chemical shift, referred to H2O, is 0.59 ± 0.05 p.p.m. This result does not provide support for the postulate of benzenoid resonance in the chelate rings. The wave lengths and extinction coeffs. for the peak absorption in the ultraviolet region are reported for acetylacetone and complexes with Li, Na, K, Be, Mg, Ca, Sr, Ba, Al, Ga, In, Zr, Th, Zn, Cd, Sc, Y, La.2H2O, V(III), VO(IV).H2O, Mn(II), Mn(II).2H2O, Mn(III), Co(II), Ni(II), Fe(III), Co(III), Cu(II), and Cr(III) in EtOH and (or) CHCl3. Spectra are shown for the Fe(III), Co(III), and Cu(II) complexes in absolute alc. and for the Cr(III) complex in CHCl3. The data indicate that the electrostatic model of Belford (C.A. 50, 4694e) cannot account for the variation in energy of the presumed $\pi - \pi^*$ transition. The energy of this transition cannot be correlated with any simple parameter and is believed to be determined by several parameters including the ability of the metal ion to participate in $d\pi - p\pi$ overlap with the π system of the chelate ring.

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p24

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=> s l4 and metal salts
       1710547 METAL
        614704 SALTS
         51457 METAL SALTS
                 (METAL(W)SALTS)
L8         557 L4 AND METAL SALTS

=> s l4 and beta-diketone metal salts
       1432549 BETA
         13325 DIKETONE
       1710547 METAL
        614704 SALTS
             2 BETA-DIKETONE METAL SALTS
                 (BETA(W)DIKETONE(W)METAL(W)SALTS)
L9           1 L4 AND BETA-DIKETONE METAL SALTS

=> d bib abs

L9   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   1994:272286  CAPLUS
DN   120:272286
TI   Chlorine-containing resin compositions including zinc plumbate and
     β-diketones
IN   Takatori, Katsuyuki; Iizuka, Shunichi
PA   Asahi Denka Kogyo KK, Japan
SO   Jpn. Kokai Tokkyo Koho, 6 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     --------------      ----   --------    --------------------    --------
PI   JP 05311020          A     19931122    JP 1992-120893          19920513 <--
PRAI JP 1992-120893              19920513
AB   Title low-fuming fire-resistant compns. showing discoloration prevention
     contain Cl-containing resins 100, Zn plumbate (I) and/or Zn hydroxyplumbate
     0.01-20, and .beta.-diketone (metal
     salts) 0.001-5 parts.  Thus, a composition comprising PVC 100, CaCO3
     100, di-2-ethylhexyl phthalate 50, an epoxidized soybean oil 2,
     dibenzoylmethane 0.05, I 3, and other additives 3.5 parts was roll-kneaded
     and press-molded to give a test piece showing limited O index (LOI) 24.6,
     low fume, and less flow in burning (UL-90).


=> s l4 and metal beta-diketonate salt#
       1710547 METAL
       1432549 BETA
          3182 DIKETONATE
       1182858 SALT#
             0 METAL BETA-DIKETONATE SALT#
                 (METAL(W)BETA(W)DIKETONATE(W)SALT#)
L10          0 L4 AND METAL BETA-DIKETONATE SALT#

=> d his

     (FILE 'HOME' ENTERED AT 15:50:58 ON 01 FEB 2007)

     FILE 'REGISTRY' ENTERED AT 15:51:34 ON 01 FEB 2007
L1               STRUCTURE UPLOADED
L2           50 S L1
L3        31098 S L1 FULL
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2/1/07
PNG
p 29/30

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     FILE 'CAPLUS' ENTERED AT 15:52:14 ON 01 FEB 2007
L4         29636 S L3 AND PY<=2002
L5          2325 S L4 AND SALTS
L6            40 S L5 AND METAL OXIDE
L7            15 S L4 AND METAL COMPLEXES OF BETA-DIKETONE#
L8           557 S L4 AND METAL SALTS
L9             1 S L4 AND BETA-DIKETONE METAL SALTS
L10            0 S L4 AND METAL BETA-DIKETONATE SALT#
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=> d que l1
L1             1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  US2004-510476/APPS


=> d ibib ed ab ind l1
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y



L1   ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2003:818473  HCAPLUS  Full-text
DOCUMENT NUMBER:          139:308120
TITLE:                    Production of polyoxymethylene in the presence of
                          diketonate metal complexes
INVENTOR(S):              Luinstra, Gerrit
PATENT ASSIGNEE(S):       BASF Aktiengesellschaft, Germany
SOURCE:                   PCT Int. Appl., 25 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ----------------    ----   --------    -------------------    --------
     WO 2003085016        A1    20031016    WO 2003-EP3744         20030410
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     DE 10215976          A1    20031023    DE 2002-10215976       20020411
     AU 2003227601        A1    20031020    AU 2003-227601         20030410
     EP 1497346           A1    20050119    EP 2003-725003         20030410
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     CN 1653104           A     20050810    CN 2003-810655         20030410
     JP 2005526880        T     20050908    JP 2003-582204         20030410
     US 2005255990        A1    20051117    US 2004-510476         20041007 <--
PRIORITY APPLN. INFO.:                     DE 2002-10215976    A  20020411
                                           WO 2003-EP3744      W  20030410
OTHER SOURCE(S):          MARPAT 139:308120
ED   Entered STN:  17 Oct 2003
AB   A method for production of polyoxymethylene comprises contacting a
     formaldehyde source with a catalyst of the formula [R1(CO)CR2(CO)R3]nMZ, where
     M is TiO, ZrO, HfO, VO, CrO2, MoO2, WO2, MnO2, ReO2, Fe, Ru, Co, Rh, Ir, Ni,
     Pd, Pt, Cu, Zn, Cd, Hg, Sn, SnO or PbO; R1, R2 and R3 are independently groups
     chosen from H, alkyl, aryl, or arylalkyl; R1, R2 and R3 can be completely or
     partly halogenated; Z is an anion; and n is 1 or 2.  Thus, chlorodioxo(2,4-
     pentanedione)molybdenum was produced and used as a catalyst to copolymerize
     1,3-dioxepane and trioxane at 80°.  The produced copolymer had weight-average
     mol. weight of 95,000 and polydispersity of 5.5.
IC   ICM  C08G002-08
     ICS  C08G002-06
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CC   35-3 (Chemistry of Synthetic High Polymers)
     Section cross-reference(s): 67
ST   diketonate metal complex polymn catalyst polyoxymethylene prodn
IT   Transition metal complexes
     RL: CAT (Catalyst use); USES (Uses)
        (1,3-diketone complexes; production of polyoxymethylene in presence of
        diketonate metal complexes)
IT   Ketones, uses
     RL: CAT (Catalyst use); USES (Uses)
        (1,3-diketones, transition metal complexes; production of polyoxymethylene
        in presence of diketonate metal complexes)
IT   Polymerization
     Polymerization catalysts
        (production of polyoxymethylene in presence of diketonate metal complexes)
IT   Polyoxyalkylenes, preparation
     Polyoxymethylenes, preparation
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (production of polyoxymethylene in presence of diketonate metal complexes)
IT   7439-88-5D, Iridium, 1,3-diketonate complexes  7439-89-6D, Iron,
     1,3-diketonate complexes  7439-92-1D, Lead, 1,3-diketonate complexes
     7439-96-5D, Manganese, 1,3-diketonate complexes  7439-97-6D, Mercury,
     1,3-diketonate complexes  7439-98-7D, Molybdenum, 1,3-diketonate
     complexes  7440-02-0D, Nickel, 1,3-diketonate complexes  7440-05-3D,
     Palladium, 1,3-diketonate complexes  7440-06-4D, Platinum, 1,3-diketonate
     complexes  7440-15-5D, Rhenium, 1,3-diketonate complexes  7440-16-6D,
     Rhodium, 1,3-diketonate complexes  7440-18-8D, Ruthenium, 1,3-diketonate
     complexes  7440-31-5D, Tin, 1,3-diketonate complexes  7440-32-6D,
     Titanium, 1,3-diketonate complexes  7440-33-7D, Tungsten, 1,3-diketonate
     complexes  7440-43-9D, Cadmium, 1,3-diketonate complexes  7440-47-3D,
     Chromium, 1,3-diketonate complexes  7440-48-4D, Cobalt, 1,3-diketonate
     complexes  7440-50-8D, Copper, 1,3-diketonate complexes  7440-58-6D,
     Hafnium, 1,3-diketonate complexes  7440-62-2D, Vanadium, 1,3-diketonate
     complexes  7440-66-6D, Zinc, 1,3-diketonate complexes  7440-67-7D,
     Zirconium, 1,3-diketonate complexes
     RL: CAT (Catalyst use); USES (Uses)
        (diketonate metal complexes used as catalysts for production of
        polyoxymethylene)
IT   611179-99-8P  611180-00-8P  611180-01-9P  611180-02-0P  611180-03-1P
     611180-04-2P  611180-05-3P  611180-06-4P  611180-07-5P  611180-08-6P
     611180-09-7P  611180-10-0P  611180-11-1P  611180-12-2P  611180-13-3P
     611180-14-4P
     RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
     USES (Uses)
        (diketonate metal complexes used as catalysts for production of
        polyoxymethylene)
IT   123-54-6, 2,4-Pentanedione, reactions  815-57-6, 3-Methyl-2,4-
     pentanedione  893-33-4, 4,4,4-Trifluoro-1-(2-naphthyl)-1,3-butanedione
     1118-71-4, 2,2,6,6-Tetramethyl-3,5-heptanedione  1522-22-1,
     1,1,1,5,5,5-Hexafluoro-2,4-pentanedione  2923-28-6, Silver triflate
     7307-04-2, 2,2-Dimethyl-3,5-hexanedione  13637-68-8, Molybdenum
     dioxodichloride  13988-67-5, 4,4-Dimethyl-1-phenyl-1,3-pentanedione
     20583-66-8, 1,1,1,5,5,6,6,7,7,7-Decafluoro-2,4-heptanedione
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (diketonate metal complexes used as catalysts for production of
        polyoxymethylene)
IT   124-41-4, Sodium methanolate
     RL: RGT (Reagent); RACT (Reactant or reagent)
        (diketonate metal complexes used as catalysts for production of
        polyoxymethylene)
IT   9002-81-7P, Poly(oxymethylene)  25214-85-1P, 1,3-Dioxepane-trioxane
```



```
     copolymer  30525-89-4P, Paraformaldehyde
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (production of polyoxymethylene in presence of diketonate metal complexes)
REFERENCE COUNT:          9      THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT


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L2             1 SEA FILE=WPIX ABB=ON  PLU=ON  US2004-510476/APPS


=> d iall code l2
YOU HAVE REQUESTED DATA FROM FILE 'WPIX' - CONTINUE? (Y)/N:y



L2   ANSWER 1 OF 1  WPIX COPYRIGHT 2007       THE THOMSON CORP on STN
ACCESSION NUMBER:     2003-902986 [82]   WPIX
DOC. NO. CPI:         C2003-256470 [82]
TITLE:                Novel complex catalysts are useful for the production of
                      polyoxymethylene
DERWENT CLASS:        A25; E12
INVENTOR:             LUINSTRA G
PATENT ASSIGNEE:      (BADI-C) BASF AG; (LUIN-I) LUINSTRA G
COUNTRY COUNT:        102

PATENT INFORMATION:

     PATENT NO      KIND DATE     WEEK     LA  PG          MAIN IPC
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     WO 2003085016  A1 20031016 (200382)* DE  24[0]       C08G002-08
     DE 10215976    A1 20031023 (200382)  DE              B01J031-22
     AU 2003227601  A1 20031020 (200436)  EN              B01J031-00
     EP 1497346     A1 20050119 (200506)  DE              C08G002-08
     KR 2004099413  A  20041126 (200523)  KO
     JP 2005526880  W  20050908 (200559)  JA  23          C08G002-06
     CN 1653104     A  20050810 (200572)  ZH
     US 20050255990 A1 20051117 (200576)  EN              B01J031-00

APPLICATION DETAILS:

     PATENT NO   KIND                  APPLICATION    DATE
     ---------------------------------------------------------------
     WO 2003085016 A1                  WO 2003-EP3744 20030410
     DE 10215976 A1                    DE 2002-10215976 20020411
     AU 2003227601 A1                  AU 2003-227601 20030410
     CN 1653104 A                      CN 2003-810655 20030410
     EP 1497346 A1                     EP 2003-725003 20030410
     JP 2005526880 W                   JP 2003-582204 20030410
     EP 1497346 A1                     WO 2003-EP3744 20030410
     JP 2005526880 W                   WO 2003-EP3744 20030410
     US 20050255990 A1                 WO 2003-EP3744 20030410
     US 20050255990 A1                 US 2004-510476 20041007
     KR 2004099413 A                   KR 2004-716027 20041008

FILING DETAILS:

     PATENT NO      KIND          PATENT NO
     ---------------------------------------------
     AU 2003227601 A1  Based on   WO 2003085016 A
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     EP 1497346 A1     Based on   WO 2003085016 A
     JP 2005526880 W   Based on   WO 2003085016 A

PRIORITY APPLN. INFO: DE 2002-10215976 20020411
INT. PATENT CLASSIF.:
           MAIN:      C08G002-06; C08G002-08
 IPC RECLASSIF.:      C07F0011-00 [I,A]; C07F0011-00 [I,C]; C08G0002-00 [I,C];
                      C08G0002-06 [I,A]; C08G0002-08 [I,A]
BASIC ABSTRACT:
          WO 2003085016 A1   UPAB: 20060203
          NOVELTY - Novel complex catalysts are claimed.
          DETAILED DESCRIPTION - Novel complex catalysts (I) of formula (1) are
     claimed.
          M = TiO, ZrO, HfO, VO, CrO2, MoO2, WO2, MnO2, ReO2, Fe, Ru, Co, Rh, Ir,
     Ni, Pd, Pt, Cu, Zn, Cd, Hg, Sn, SnO or PbO;
          R1, R2, R3 = H, alkyl, aryl, aralkyl, optionally halogenated;
          Z = anion; and
          n = 1 or 2
          An INDEPENDENT CLAIM is also included for a process for the production
     of polyoxymethylene by contacting a source of formaldehyde with a catalyst
     (I).
          USE - The novel complex catalysts (I) are useful for the production of
     polyoxymethylene.
          ADVANTAGE - The catalysts (I) have a short induction time and are
tolerant to impurities and traces of water in the formaldehyde source. MANUAL CODE:
CPI: A02-A06; A02-A07; A05-H02A; E05-F02; E05-L; E05-M;
                      E05-N; E07-A04; E10-D01D
AN   2003-902986 [82]   WPIX
DC   A25; E12
IC   ICM C08G002-06; C08G002-08
IPCR C07F0011-00 [I,A]; C07F0011-00 [I,C]; C08G0002-00 [I,C]; C08G0002-06
     [I,A]; C08G0002-08 [I,A]
MC   CPI: A02-A06; A02-A07; A05-H02A; E05-F02; E05-L; E05-M; E05-N; E07-A04;
          E10-D01D
PLE  UPA   20060203
     [1.1]      018 G1503 D01 D50 D81 F22 DCN: R00001 DCR: 34; H0000; L9999
                L2573 L2506; P1887 P0248 P0226 D01 010 D11 F24;
     [1.2]      018 ND02;
     [1.3]      018 D00 D01 D11 D10 D18-R D69 7A-R D54 D51 D57 D59 D61-R Sn 4A
                Pb Cl 7A O- 6A Ti 4B Tr Zr Hf V- 5B Cr 6B Mo W- Mn 7B Fe 8B Co
                Ir Ni Pd Pt Cu 1B Zn 2B Cd Hg F- 019 018 D20 F62 DCN: Re Ru Rh;
                C999 C102 C000; C999 C259; C999 C248;
     [1.4]      018 D01 D50 D85 F23 D11 D10; C999 C306; C999 C157;
     [1.5]      018 D00 D70 O- 6A Cl 7A Mo 6B Tr; C999 C306; C999 C157;
CMC  UPB   20060203
     ORN: 0001-U 0917-U
     DCR: 1137-U 34-U
     M3 *01*    A429 A680 A940 A960 C108 C710 G001 G002 G010 G011 G012 G013 G019
                G020 G021 G022 G029 G040 G100 G111 G112 G221 G299 H600 H608 H609
                H641 H642 H643 H681 H682 H683 H689 M121 M122 M124 M129 M135 M139
                M210 M211 M212 M213 M214 M215 M216 M220 M221 M222 M223 M224 M225
                M226 M231 M232 M233 M262 M280 M281 M282 M311 M312 M313 M314 M315
                M316 M320 M321 M322 M331 M332 M333 M334 M340 M342 M343 M344 M349
                M352 M362 M372 M391 M392 M411 M510 M520 M530 M531 M532 M533 M540
                M620 M630 M710 M781 Q121 R038  M905 M904
                MCN: 0111-66401-N 0111-66401-U
     M3 *02*    A350 A426 A427 A428 A429 A430 A544 A545 A546 A548 A677 A678 A680
                A922 A960 C108 C710 C801 C802 C803 C804 C805 C806 C807 G001 G002
                G010 G011 G012 G013 G019 G020 G021 G022 G029 G040 G100 G111 G112
                G221 G299 H600 H608 H609 H641 H642 H643 H681 H682 H683 H689 M121
```

M122 M124 M129 M135 M139 M210 M211 M212 M213 M214 M215 M216 M220
M221 M222 M223 M224 M225 M226 M231 M232 M233 M262 M280 M281 M282
M311 M312 M313 M314 M315 M316 M320 M321 M322 M331 M332 M333 M334
M340 M342 M343 M344 M349 M352 M362 M372 M391 M392 M411 M510 M520
M530 M531 M532 M533 M540 M620 M630 M710 M781 Q121 R038 M905
M904
MCN: 0111-66402-N 0111-66402-U
M3 *03* A422 A423 A540 A940 A960 C108 C550 C710 C720 C801 C802 C803 C804
C805 C807 G001 G002 G010 G011 G012 G013 G019 G020 G021 G022 G029
G040 G100 G111 G112 G221 G299 H600 H608 H609 H641 H642 H643 H681
H682 H683 H689 M121 M122 M124 M129 M135 M139 M210 M211 M212 M213
M214 M215 M216 M220 M221 M222 M223 M224 M225 M226 M231 M232 M233
M262 M280 M281 M282 M311 M312 M313 M314 M315 M316 M320 M321 M322
M331 M332 M333 M334 M340 M342 M343 M344 M349 M352 M362 M372 M391
M392 M411 M510 M520 M530 M531 M532 M533 M540 M620 M630 M710 M781
Q121 R038 M905 M904
MCN: 0111-66403-N 0111-66403-U
M3 *04* A350 A382 A422 A423 A540 A672 A922 A940 A960 C108 C550 C710 C720
C801 C802 C803 C804 C805 C807 G001 G002 G010 G011 G012 G013 G019
G020 G021 G022 G029 G040 G100 G111 G112 G221 G299 H600 H608 H609
H641 H642 H643 H681 H682 H683 H689 M121 M122 M124 M129 M135 M139
M210 M211 M212 M213 M214 M215 M216 M220 M221 M222 M223 M224 M225
M226 M231 M232 M233 M262 M280 M281 M282 M311 M312 M313 M314 M315
M316 M320 M321 M322 M331 M332 M333 M334 M340 M342 M343 M344 M349
M352 M362 M372 M391 M392 M411 M510 M520 M530 M531 M532 M533 M540
M620 M630 M710 M781 Q121 R038 M905 M904
MCN: 0111-66404-N 0111-66404-U
M3 *05* A424 A425 A542 A674 A675 A922 A940 A960 C108 C550 C710 C720 C801
C802 C803 C804 C805 C807 G001 G002 G010 G011 G012 G013 G019 G020
G021 G022 G029 G040 G100 G111 G112 G221 G299 H600 H608 H609 H641
H642 H643 H681 H682 H683 H689 M121 M122 M124 M129 M135 M139 M210
M211 M212 M213 M214 M215 M216 M220 M221 M222 M223 M224 M225 M226
M231 M232 M233 M262 M280 M281 M282 M311 M312 M313 M314 M315 M316
M320 M321 M322 M331 M332 M333 M334 M340 M342 M343 M344 M349 M352
M362 M372 M391 M392 M411 M510 M520 M530 M531 M532 M533 M540 M620
M630 M710 M781 Q121 R038 M905 M904
MCN: 0111-66405-N 0111-66405-U
M3 *06* A425 A542 A674 A675 A940 A960 C108 C550 C710 C720 C801 C802 C803
C804 C805 C807 G001 G002 G010 G011 G012 G013 G019 G020 G021 G022
G029 G040 G100 G111 G112 G221 G299 H600 H608 H609 H641 H642 H643
H681 H682 H683 H689 M121 M122 M124 M129 M135 M139 M210 M211 M212
M213 M214 M215 M216 M220 M221 M222 M223 M224 M225 M226 M231 M232
M233 M262 M280 M281 M282 M311 M312 M313 M314 M315 M316 M320 M321
M322 M331 M332 M333 M334 M340 M342 M343 M344 M349 M352 M362 M372
M391 M392 M411 M510 M520 M530 M531 M532 M533 M540 M620 M710 M781
Q121 R038 M905 M904
MCN: 0111-66406-N 0111-66406-U
M3 *07* J4 J471 M280 M320 M416 M620 M781 Q110 R023 R038 M905 M904 M910
DCN: R00001-K R00001-U
DCR: 34-K 34-U
M3 *08* F000 F170 M280 M320 M413 M510 M521 M530 M540 M781 Q110 R023 R038
M905 M904 M910
RIN: 00222
DCN: R00917-K R00917-U
DCR: 1137-K 1137-U


```
=> => d que l10
L6            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  FORMALDEHYDE/CN
L7            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PARAFORMALDEHYDE/CN
L8            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TRIOXANE/CN
L9            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TETRAOXANE/CN
L10           4 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L6 OR L7 OR L8 OR L9)


=> d ide l10 1-4
YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:y



L10  ANSWER 1 OF 4  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   30525-89-4  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Paraformaldehyde (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   Aldacide
CN   Flo-Mor
CN   Paraform
DR   104512-58-5, 104512-63-2, 104814-22-4, 53026-80-5
MF   (C H2 O)x
CI   PMS, COM
PCT  Polyether, Polyether formed
LC   STN Files:   ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOSIS, BIOTECHNO, CA,
       CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CHEMSAFE, CIN, CSCHEM,
       CSNB, DDFU, DETHERM*, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA,
       MEDLINE, MRCK*, MSDS-OHS, PIRA, PROMT, PS, RTECS*, SPECINFO, TOXCENTER,
       ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)

**RELATED POLYMERS AVAILABLE WITH POLYLINK**

     CM   1

     CRN  50-00-0
     CMF  C H2 O


 H2C=O



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

           5989 REFERENCES IN FILE CA (1907 TO DATE)
            480 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
           6016 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L10  ANSWER 2 OF 4  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   293-30-1  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   1,3,5,7-Tetroxocane (7CI, 8CI, 9CI)  (CA INDEX NAME)
OTHER NAMES:
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CN   1,3,5,7-Tetraoxacyclooctane
CN   1,3,5,7-Tetraoxocane
CN   Formaldehyde, tetramer
CN   Tetorasetto ST 1
CN   Tetra(oxymethylene)
CN   Tetraoxacyclooctane
CN   Tetraoxane
CN   Tetraoxocane
CN   Tetraset ST 1
CN   Tetroxocane
DR   16905-45-6
MF   C4 H8 O4
CI   COM, RPS
LC   STN Files:   AGRICOLA, BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMLIST, DETHERM*,
       IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL
         (*File contains numerically searchable property data)
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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

           206 REFERENCES IN FILE CA (1907 TO DATE)
             7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
           207 REFERENCES IN FILE CAPLUS (1907 TO DATE)
             9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L10  ANSWER 3 OF 4  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   110-88-3  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   1,3,5-Trioxane (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   s-Trioxane (8CI)
CN   Trioxane (6CI, 7CI)
OTHER NAMES:
CN   Formaldehyde, trimer
CN   NSC 26347
CN   sym-Trioxane
CN   Triformol
CN   Trioxan
CN   Trioxymethylene
DR   113783-48-5
MF   C3 H6 O3
CI   COM, RPS
LC   STN Files:   AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS, CA, CAOLD,
       CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN,
       CSCHEM, CSNB, DETHERM*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT,
       ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*,
       MSDS-OHS, PROMT, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA,
       ULIDAT, USPAT2, USPATFULL, VTB
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
```


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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

           2545 REFERENCES IN FILE CA (1907 TO DATE)
            110 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
           2545 REFERENCES IN FILE CAPLUS (1907 TO DATE)
             32 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L10  ANSWER 4 OF 4  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   50-00-0  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Formaldehyde (8CI, 9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   BFV
CN   F-gen
CN   Fannoform
CN   Floguard 1015
CN   FM 282
CN   Fordor
CN   Formalin
CN   Formalin LM
CN   Formalith
CN   Formic aldehyde
CN   Formol
CN   Fyde
CN   Lysoform
CN   Methaldehyde
CN   Methanal
CN   Methyl aldehyde
CN   Methylene oxide
CN   Morbicid
CN   NSC 298885
CN   Optilyse
CN   Oxomethane
CN   Oxymethylene
CN   Paraform
CN   Superlysoform
DR   8005-38-7, 8006-07-3, 8013-13-6, 112068-71-0
MF   C H2 O
CI   COM
LC   STN Files:   ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS,
       BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS,
       CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*,
       DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*,
       HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT,
       PIRA, PROMT, PS, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USAN,
       USPAT2, USPATFULL, VETU, VTB
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

72719 REFERENCES IN FILE CA (1907 TO DATE)
6800 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
72839 REFERENCES IN FILE CAPLUS (1907 TO DATE)
19 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> => d que stat l24
L20 STR

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L24 81815 SEA FILE=REGISTRY SSS FUL L20

100.0% PROCESSED 196661 ITERATIONS 81815 ANSWERS
SEARCH TIME: 00.00.01

=> d que stat l30
L20 STR

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L24 81815 SEA FILE=REGISTRY SSS FUL L20
L25 STR

VAR G1=TI/ZR/HF/V/CR/MO/W/MN/RE/FE/RU/CO/RH/IR/NI/PD/PT/CU/ZN
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L27 STR

VAR G1=CD/HG/SN/PB
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L30 53675 SEA FILE=REGISTRY SUB=L24 SSS FUL (L25 OR L27)

100.0% PROCESSED 54971 ITERATIONS 53675 ANSWERS
SEARCH TIME: 00.00.01

=> => d que nos 177
L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2004-510476/APPS
L3 TRANSFER PLU=ON L1 1- RN : 53 TERMS
L4 53 SEA FILE=REGISTRY ABB=ON PLU=ON L3
L5 3 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND PMS/CI
L6 1 SEA FILE=REGISTRY ABB=ON PLU=ON FORMALDEHYDE/CN
L7 1 SEA FILE=REGISTRY ABB=ON PLU=ON PARAFORMALDEHYDE/CN
L8 1 SEA FILE=REGISTRY ABB=ON PLU=ON TRIOXANE/CN
L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON TETRAOXANE/CN
L10 4 SEA FILE=REGISTRY ABB=ON PLU=ON (L6 OR L7 OR L8 OR L9)
L13 50 SEA FILE=REGISTRY ABB=ON PLU=ON L4 NOT (L5 OR L10)
L14 42 SEA FILE=REGISTRY ABB=ON PLU=ON L13 AND M/ELS
L15 2 SEA FILE=REGISTRY ABB=ON PLU=ON L14 AND (AG/ELS OR NA/ELS)
L16 40 SEA FILE=REGISTRY ABB=ON PLU=ON L14 NOT L15
L20 STR
L24 81815 SEA FILE=REGISTRY SSS FUL L20
L25 STR
L27 STR
L30 53675 SEA FILE=REGISTRY SUB=L24 SSS FUL (L25 OR L27)
L32 QUE ABB=ON PLU=ON LUINSTRA, G?/AU
L33 QUE ABB=ON PLU=ON BASF/CS,SO,PA

L34 QUE ABB=ON PLU=ON AY<2003 OR PY<2003 OR PRY<2003 OR MY<2003 OR REVIEW/DT
L36 QUE ABB=ON PLU=ON ?DIKETO? OR (DI(W)KETO?) OR ?DIONE OR ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION? OR ?HEPTANDION?
L37 QUE ABB=ON PLU=ON ?CATALY?
L38 QUE ABB=ON PLU=ON ?POLYOXYMETHYLEN? OR (POLY(1A)OXYMETHYLEN?) OR (POLYOXY(1A)METHYLEN?)
L39 QUE ABB=ON PLU=ON ?POLYMER OR HOMOPOLYMER? OR ?POLYMERI?
L40 QUE ABB=ON PLU=ON FORMALDEHYD? OR TRIOXANE OR TETRAOXANE OR TETROXANE OR PARAFORMALDEHYD?
L42 QUE ABB=ON PLU=ON "POLYMERIZATION CATALYSTS"+PFT,OLD,NEW,NT/CT
L43 QUE ABB=ON PLU=ON POLYOXYALKYLENES+PFT,OLD,NEW,NT/CT
L44 QUE ABB=ON PLU=ON "POLYOXYALKYLENES, PREPARATION"+PFT,OLD,NEW,NT/CT
L45 QUE ABB=ON PLU=ON POLYOXYMETHYLENES+PFT,OLD,NEW,NT/CT
L46 QUE ABB=ON PLU=ON "POLYOXYMETHYLENES, PREPARATION"+PFT,OLD,NEW,NT/CT
L48 16 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND L24
L49 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L48
L50 1858 SEA FILE=HCAPLUS ABB=ON PLU=ON L16 (L) L36
L51 144654 SEA FILE=HCAPLUS ABB=ON PLU=ON L16 (L) CAT/RL
L52 217 SEA FILE=HCAPLUS ABB=ON PLU=ON L50 AND L51
L53 45193 SEA FILE=HCAPLUS ABB=ON PLU=ON L30
L54 10238 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 (L) CAT/RL
L55 3687 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 (L) (L38 OR L39)
L56 10791 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 (L) L37
L57 2657 SEA FILE=HCAPLUS ABB=ON PLU=ON (L54 OR L56) AND L55
L58 3936 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND L42
L59 8834 SEA FILE=HCAPLUS ABB=ON PLU=ON L5
L60 247485 SEA FILE=HCAPLUS ABB=ON PLU=ON ((?POLYOXYMETHYLEN?/OBI OR (POLY/OBI(1A)OXYMETHYLEN?/OBI) OR (POLYOXY/OBI(1A)METHYLEN?/OBI)) OR (L43 OR L44 OR L45 OR L46))
L61 45115 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 (15A) L39
L62 3796 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 (L) L39
L63 279 SEA FILE=HCAPLUS ABB=ON PLU=ON (L59 OR L60 OR L61 OR L62) AND (L49 OR L52 OR L57 OR L58)
L64 44 SEA FILE=HCAPLUS ABB=ON PLU=ON L63 AND (L5 OR L38 OR (L45 OR L46))
L65 SEL PLU=ON L5 1- NAME : 45 TERMS
L66 35639 SEA FILE=HCAPLUS ABB=ON PLU=ON L65
L67 32 SEA FILE=HCAPLUS ABB=ON PLU=ON L63 AND L66
L68 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L63 AND (L32 OR L33)
L69 159 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND (L32 OR L33)
L70 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L69 AND (L59 OR L60 OR L61 OR L62)
L71 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L68 OR L70
L72 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L71 AND L32
L73 11 SEA FILE=HCAPLUS ABB=ON PLU=ON (L71 OR L72)
L75 50 SEA FILE=HCAPLUS ABB=ON PLU=ON L64 OR L67
L76 48 SEA FILE=HCAPLUS ABB=ON PLU=ON L75 NOT L73
L77 48 SEA FILE=HCAPLUS ABB=ON PLU=ON L76 AND L34

=> d his 192

(FILE 'USPATFULL, USPAT2' ENTERED AT 11:25:12 ON 05 FEB 2007)
L92 12 S L91 AND L34

```
=> d que nos 192
L1            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  US2004-510476/APPS
L3              TRANSFER  PLU=ON  L1 1- RN :      53 TERMS
L4           53 SEA FILE=REGISTRY ABB=ON  PLU=ON  L3
L5            3 SEA FILE=REGISTRY ABB=ON  PLU=ON  L4 AND PMS/CI
L6            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  FORMALDEHYDE/CN
L7            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  PARAFORMALDEHYDE/CN
L8            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TRIOXANE/CN
L9            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TETRAOXANE/CN
L10           4 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L6 OR L7 OR L8 OR L9)
L13          50 SEA FILE=REGISTRY ABB=ON  PLU=ON  L4 NOT (L5 OR L10)
L14          42 SEA FILE=REGISTRY ABB=ON  PLU=ON  L13 AND M/ELS
L15           2 SEA FILE=REGISTRY ABB=ON  PLU=ON  L14 AND (AG/ELS OR NA/ELS)
L16          40 SEA FILE=REGISTRY ABB=ON  PLU=ON  L14 NOT L15
L34             QUE  ABB=ON  PLU=ON  AY<2003 OR PY<2003 OR PRY<2003 OR MY
                <2003 OR REVIEW/DT
L45             QUE  ABB=ON  PLU=ON  POLYOXYMETHYLENES+PFT,OLD,NEW,NT/CT
L46             QUE  ABB=ON  PLU=ON  "POLYOXYMETHYLENES, PREPARATION"+PFT
                ,OLD,NEW,NT/CT
L88        2441 SEA L5
L89         231 SEA L88 AND (L45 OR L46)
L90         255 SEA L88 AND L16
L91          21 SEA L89 AND L90
L92          12 SEA L91 AND L34



=> d que stat 194
L20             STR
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```
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   6

STEREO ATTRIBUTES: NONE
L94           0 SEA FILE=WPIX SSS FUL L20

100.0% PROCESSED    3551 ITERATIONS                          0 ANSWERS
SEARCH TIME: 00.00.05


=> d que l115
L32             QUE  ABB=ON  PLU=ON  LUINSTRA, G?/AU
L33             QUE  ABB=ON  PLU=ON  BASF/CS,SO,PA
L34             QUE  ABB=ON  PLU=ON  AY<2003 OR PY<2003 OR PRY<2003 OR MY
```



```
                <2003 OR REVIEW/DT
L36             QUE  ABB=ON  PLU=ON  ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
                R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
                ? OR ?HEPTANDION?
L38             QUE  ABB=ON  PLU=ON  ?POLYOXYMETHYLEN? OR (POLY(1A)OXYMET
                HYLEN?) OR (POLYOXY(1A)METHYLEN?)
L40             QUE  ABB=ON  PLU=ON  FORMALDEHYD? OR TRIOXANE OR TETRAOXA
                NE OR TETROXANE OR PARAFORMALDEHYD?
L85             QUE  ABB=ON  PLU=ON  TI OR TIO OR ZR OR ZRO OR VO OR V OR
                 CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
                O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
                OR CU OR ZN OR CD OR HG OR SN OR SNO OR PBO OR PB
L86             QUE  ABB=ON  PLU=ON  TITAN? OR ZIRCON? OR HAFN? OR VANAD?
                 OR CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
                 OR MANGANES? OR RHENIUM? OR RHENAT? OR IRON OR FERRIC OR
                 FERRIUM OR FERROUS OR RUTHEN? OR COBALT? OR RHODIUM? OR
                RHODAT? OR IRIDIUM? OR IRIDAT?
L87             QUE  ABB=ON  PLU=ON  NICKEL OR PALLAD? OR PLATINAT? OR PL
                ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
                M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
                R LEAD
L98             QUE  ABB=ON  PLU=ON  C08G0002-06/IPC
L99             QUE  ABB=ON  PLU=ON  C08G0002-08/IPC
L100            QUE  ABB=ON  PLU=ON  (E05-F02 OR E05-L OR E05-M OR E05-N)
                /MC
L101            QUE  ABB=ON  PLU=ON  ((A922 (P) A960)(P)Q121)/MO,M1,M2,M3
                ,M4,M5,M6
L102       3485 SEA FILE=WPIX ABB=ON  PLU=ON  (L85 OR L86 OR L87)(10A)L36
L103        812 SEA FILE=WPIX ABB=ON  PLU=ON  L100 AND L36
L104         15 SEA FILE=WPIX ABB=ON  PLU=ON  L101 AND (L102 OR L103)
L105          1 SEA FILE=WPIX ABB=ON  PLU=ON  L104 AND (L98 OR L99)
L106            QUE  ABB=ON  PLU=ON  P1887/PLE
L107          1 SEA FILE=WPIX ABB=ON  PLU=ON  L104 AND L106
L108          1 SEA FILE=WPIX ABB=ON  PLU=ON  L101 AND L100 AND L106
L109          1 SEA FILE=WPIX ABB=ON  PLU=ON  L104 AND (L38 OR L40)
L110          3 SEA FILE=WPIX ABB=ON  PLU=ON  L104 AND (L32 OR L33)
L112         15 SEA FILE=WPIX ABB=ON  PLU=ON  (L104 OR L105) OR (L107 OR L108
                OR L109)
L113         12 SEA FILE=WPIX ABB=ON  PLU=ON  L112 NOT L110
L114         11 SEA FILE=WPIX ABB=ON  PLU=ON  L113 AND L34
L115         11 SEA FILE=WPIX ABB=ON  PLU=ON  L114 AND L36


=> d his l128

     (FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 11:56:50 ON 05 FEB 2007)
L128          1 S L127 AND L34

=> d que nos l128
L1            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  US2004-510476/APPS
L3              TRANSFER  PLU=ON  L1 1- RN :      53 TERMS
L4           53 SEA FILE=REGISTRY ABB=ON  PLU=ON  L3
L5            3 SEA FILE=REGISTRY ABB=ON  PLU=ON  L4 AND PMS/CI
L32             QUE  ABB=ON  PLU=ON  LUINSTRA, G?/AU
L33             QUE  ABB=ON  PLU=ON  BASF/CS,SO,PA
L34             QUE  ABB=ON  PLU=ON  AY<2003 OR PY<2003 OR PRY<2003 OR MY
                <2003 OR REVIEW/DT
L36             QUE  ABB=ON  PLU=ON  ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
                R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
                ? OR ?HEPTANDION?
```



```
L37             QUE  ABB=ON  PLU=ON  ?CATALY?
L38             QUE  ABB=ON  PLU=ON  ?POLYOXYMETHYLEN? OR (POLY(1A)OXYMET
                HYLEN?) OR (POLYOXY(1A)METHYLEN?)
L40             QUE  ABB=ON  PLU=ON  FORMALDEHYD? OR TRIOXANE OR TETRAOXA
                NE OR TETROXANE OR PARAFORMALDEHYD?
L65             SEL  PLU=ON  L5 1- NAME :      45 TERMS
L85             QUE  ABB=ON  PLU=ON  TI OR TIO OR ZR OR ZRO OR VO OR V OR
                 CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
                O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
                OR CU OR ZN OR CD OR HG OR SN OR SNO OR PBO OR PB
L86             QUE  ABB=ON  PLU=ON  TITAN? OR ZIRCON? OR HAFN? OR VANAD?
                 OR CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
                 OR MANGANES? OR RHENIUM? OR RHENAT? OR IRON OR FERRIC OR
                 FERRIUM OR FERROUS OR RUTHEN? OR COBALT? OR RHODIUM? OR
                RHODAT? OR IRIDIUM? OR IRIDAT?
L87             QUE  ABB=ON  PLU=ON  NICKEL OR PALLAD? OR PLATINAT? OR PL
                ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
                M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
                R LEAD
L116        2328 SEA L5
L117        3668 SEA (L85 OR L86 OR L87) (10A) L36
L118         381 SEA L117 (L) L37
L119           0 SEA L116 AND L118
L120       11873 SEA L65
L121       11991 SEA L120 OR L38
L122           0 SEA L118 AND L121
L123           5 SEA L118 AND L40
L124           0 SEA L117 AND (L116 OR L121)
L125           5 SEA L119 OR L122 OR L123 OR L124
L126           2 SEA (L116 OR L117 OR L120 OR L121) AND (L32 OR L33)
L127           5 SEA L125 NOT L126
L128           1 SEA L127 AND L34



=> => d his l161

     (FILE 'MEDLINE, BIOSIS, EMBASE, PASCAL, JICST-EPLUS, APOLLIT, CABA,
     SCISEARCH, CONFSCI, DISSABS' ENTERED AT 12:11:58 ON 05 FEB 2007)
L161          2 S L160 AND L34
              SAVE TEMP L161 LAO476MULB/A

     FILE 'STNGUIDE' ENTERED AT 12:31:14 ON 05 FEB 2007

=> d que l161
L1            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  US2004-510476/APPS
L3              TRANSFER  PLU=ON  L1 1- RN :      53 TERMS
L4           53 SEA FILE=REGISTRY ABB=ON  PLU=ON  L3
L5            3 SEA FILE=REGISTRY ABB=ON  PLU=ON  L4 AND PMS/CI
L32             QUE  ABB=ON  PLU=ON  LUINSTRA, G?/AU
L33             QUE  ABB=ON  PLU=ON  BASF/CS,SO,PA
L34             QUE  ABB=ON  PLU=ON  AY<2003 OR PY<2003 OR PRY<2003 OR MY
                <2003 OR REVIEW/DT
L36             QUE  ABB=ON  PLU=ON  ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
                R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
                ? OR ?HEPTANDION?
L37             QUE  ABB=ON  PLU=ON  ?CATALY?
L38             QUE  ABB=ON  PLU=ON  ?POLYOXYMETHYLEN? OR (POLY(1A)OXYMET
                HYLEN?) OR (POLYOXY(1A)METHYLEN?)
L39             QUE  ABB=ON  PLU=ON  ?POLYMER OR HOMOPOLYMER? OR ?POLYMER
                I?
L40             QUE  ABB=ON  PLU=ON  FORMALDEHYD? OR TRIOXANE OR TETRAOXA
                NE OR TETROXANE OR PARAFORMALDEHYD?
L65             SEL  PLU=ON  L5 1- NAME :      45 TERMS
L85             QUE  ABB=ON  PLU=ON  TI OR TIO OR ZR OR ZRO OR VO OR V OR
                 CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
                O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
                OR CU OR ZN OR CD OR HG OR SN OR SNO OR PBO OR PB
L86             QUE  ABB=ON  PLU=ON  TITAN? OR ZIRCON? OR HAFN? OR VANAD?
                 OR CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
                 OR MANGANES? OR RHENIUM? OR RHENAT? OR IRON OR FERRIC OR
                 FERRIUM OR FERROUS OR RUTHEN? OR COBALT? OR RHODIUM? OR
                RHODAT? OR IRIDIUM? OR IRIDAT?
L87             QUE  ABB=ON  PLU=ON  NICKEL OR PALLAD? OR PLATINAT? OR PL
                ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
                M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
```



```
L65             SEL  PLU=ON  L5 1- NAME :      45 TERMS
L85             QUE  ABB=ON  PLU=ON  TI OR TIO OR ZR OR ZRO OR VO OR V OR
                 CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
                O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
                OR CU OR ZN OR CD OR HG OR SN OR SNO OR PBO OR PB
L86             QUE  ABB=ON  PLU=ON  TITAN? OR ZIRCON? OR HAFN? OR VANAD?
                 OR CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
                 OR MANGANES? OR RHENIUM? OR RHENAT? OR IRON OR FERRIC OR
                 FERRIUM OR FERROUS OR RUTHEN? OR COBALT? OR RHODIUM? OR
                RHODAT? OR IRIDIUM? OR IRIDAT?
L87             QUE  ABB=ON  PLU=ON  NICKEL OR PALLAD? OR PLATINAT? OR PL
                ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
                M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
L146       10924 SEA (METAL OR (L85 OR L86 OR L87))(7A) L36
L147         772 SEA L146(15A)(ACTIVAT? OR L37)
L148           0 SEA L147 AND L38
L149           8 SEA L147 AND L40
L150       19047 SEA L65
L151           0 SEA L147 AND L150
L152           6 SEA L146 AND (L32 OR L33)
L154           8 SEA L148 OR L149 OR L151
L155        1888 SEA L146 AND (ACTIVAT? OR L37)
L156          14 SEA L155 AND L40
L157           0 SEA L155 AND L150
L158           0 SEA L155 AND L38
L159          14 SEA L154 OR L156 OR L157 OR L158
L160          14 SEA L159 NOT L152
L161           2 SEA L160 AND L34


=> d que nos l143
L1            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  US2004-510476/APPS
L3              TRANSFER  PLU=ON  L1 1- RN :      53 TERMS
L4           53 SEA FILE=REGISTRY ABB=ON  PLU=ON  L3
L5            3 SEA FILE=REGISTRY ABB=ON  PLU=ON  L4 AND PMS/CI
L36             QUE  ABB=ON  PLU=ON  ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
                R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
                ? OR ?HEPTANDION?
L37             QUE  ABB=ON  PLU=ON  ?CATALY?
L38             QUE  ABB=ON  PLU=ON  ?POLYOXYMETHYLEN? OR (POLY(1A)OXYMET
                HYLEN?) OR (POLYOXY(1A)METHYLEN?)
L39             QUE  ABB=ON  PLU=ON  ?POLYMER OR HOMOPOLYMER? OR ?POLYMER
                I?
L40             QUE  ABB=ON  PLU=ON  FORMALDEHYD? OR TRIOXANE OR TETRAOXA
                NE OR TETROXANE OR PARAFORMALDEHYD?
L65             SEL  PLU=ON  L5 1- NAME :      45 TERMS
L85             QUE  ABB=ON  PLU=ON  TI OR TIO OR ZR OR ZRO OR VO OR V OR
                 CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
                O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
                OR CU OR ZN OR CD OR HG OR SN OR SNO OR PBO OR PB
L86             QUE  ABB=ON  PLU=ON  TITAN? OR ZIRCON? OR HAFN? OR VANAD?
                 OR CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
                 OR MANGANES? OR RHENIUM? OR RHENAT? OR IRON OR FERRIC OR
                 FERRIUM OR FERROUS OR RUTHEN? OR COBALT? OR RHODIUM? OR
                RHODAT? OR IRIDIUM? OR IRIDAT?
L87             QUE  ABB=ON  PLU=ON  NICKEL OR PALLAD? OR PLATINAT? OR PL
                ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
                M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
```

```
                R LEAD
L129        974 SEA FILE=JAPIO ABB=ON  PLU=ON . (METAL OR (L85 OR L86 OR L87))
                (15A)L36
L132        844 SEA FILE=JAPIO ABB=ON  PLU=ON  L65
L138        201 SEA FILE=JAPIO ABB=ON  PLU=ON  L129 AND L37
L139         64 SEA FILE=JAPIO ABB=ON  PLU=ON  L138 AND L39
L140          5 SEA FILE=JAPIO ABB=ON  PLU=ON  L129 AND ACTIVAT?
L141          3 SEA FILE=JAPIO ABB=ON  PLU=ON  L140 AND L39
L142         65 SEA FILE=JAPIO ABB=ON  PLU=ON  L139 OR L141
L143          0 SEA FILE=JAPIO ABB=ON  PLU=ON  L142 AND (L132 OR L40 OR L38)


=> dup rem l77 l92 l115 l128 l161 l143
L143 HAS NO ANSWERS
FILE 'HCAPLUS' ENTERED AT 12:41:55 ON 05 FEB 2007
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PROCESSING COMPLETED FOR L115
PROCESSING COMPLETED FOR L128
PROCESSING COMPLETED FOR L161
PROCESSING COMPLETED FOR L143
L162         71 DUP REM L77 L92 L115 L128 L161 L143 (3 DUPLICATES REMOVED)
                ANSWERS '1-48' FROM FILE HCAPLUS
                ANSWERS '49-58' FROM FILE USPATFULL
                ANSWERS '59-69' FROM FILE WPIX
                ANSWERS '70-71' FROM FILE EMBASE

=> file stnguide
FILE 'STNGUIDE' ENTERED AT 12:42:06 ON 05 FEB 2007
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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb  2, 2007 (20070202/UP).
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=> d ibib ed ab hitind hitstr
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' - CONTINUE?
(Y)/N:y


L162 ANSWER 1 OF 71  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2004:155690  HCAPLUS  Full-text
DOCUMENT NUMBER:          140:181984
TITLE:                    Double-metal cyanide catalysts which can be used to
                          prepare polyols and ring opening polymerization
INVENTOR(S):              Bi, Le-Khac; Wang, Wei
PATENT ASSIGNEE(S):       Bayer Polymers LLC, USA; Bayer Antwerpen N.V.
SOURCE:                   U.S., 11 pp.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.          DATE
     ----------          ----   --------    -------------------      --------
     US 6696383          B1     20040224    US 2002-251155           20020920 <--
     EP 1400281          A1     20040324    EP 2003-19677            20030909 <--
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     BR 2003004147          A      20040908    BR 2003-4147             20030916 <--
     CA 2441185             A1     20040320    CA 2003-2441185          20030917 <--
     SG 107154              A1     20041129    SG 2003-5634             20030917 <--
     KR 2004025838          A      20040326    KR 2003-64955            20030919 <--
     JP 2004114037          A      20040415    JP 2003-327513           20030919 <--
     CN 1494946             A      20040512    CN 2003-132776           20030919 <--
     US 2004102314          A1     20040527    US 2003-717094           20031119 <--
     US 6867162             B2     20050315
     US 2004116281          A1     20040617    US 2003-717093           20031119 <--
PRIORITY APPLN. INFO.:                          US 2002-251155      A    20020920 <--
ED   Entered STN:  26 Feb 2004
AB   The title (DMC) catalysts are prepared by combining (i) ≥1 metal salt, (ii) ≥1
     metal cyanide salt, (iii) ≥1 organic complexing ligand, (iv) ≥1 alkaline metal
     salt, and, optionally, (v) ≥1 functionalized polymer.  Surprisingly, DMC
     catalysts which are preferably prepared with ≥1 alkaline metal halide, have
     acceptable activity and can be used to catalyze oxyalkylation reactions.
     Addnl., DMC catalysts can be used to prepare polyols which have reduced levels
     of high mol. weight tail.
IC   ICM  B01J027-26
INCL 502175000; 502200000
CC   35-3 (Chemistry of Synthetic High Polymers)
     Section cross-reference(s): 67
IT   Bile acids
     Polycarbonates, uses
     Polyesters, uses
     Polyethers, uses
       Polyoxyalkylenes, uses
       Polyoxymethylenes, uses
     RL: CAT (Catalyst use); USES (Uses)
        (double-metal cyanide catalysts which can be used to prepare polyols
        having reduced levels of high mol. weight fraction)
IT   Polyoxyalkylenes, preparation
```



```
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (double-metal cyanide catalysts which can be used to prepare polyols
        having reduced levels of high mol. weight fraction)
IT   Polymerization catalysts
        (ring-opening; double-metal cyanide catalysts which can be used to
        prepare polyols having reduced levels of high mol. weight fraction)
IT   64-17-5, Ethanol, uses  67-63-0, Isopropanol, uses  71-36-3, n-Butanol,
     uses  75-65-0, tert-Butyl alcohol, uses  78-83-1, Isobutanol, uses
     78-92-2, sec-Butanol  553-72-0, Zinc benzoate  557-28-8, Zinc propionate
     557-34-6, Zinc acetate  557-41-5, Zinc formate  3017-60-5, Cobalt(II)
     thiocyanate  3349-06-2, Nickel(II) formate  7447-40-7, Potassium
     chloride, uses  7447-41-8, Lithium chloride, uses  7550-35-8, Lithium
     bromide  7646-79-9, Cobalt(II) chloride, uses  7646-85-7, Zinc chloride,
     uses  7647-14-5, Sodium chloride, uses  7647-15-6, Sodium bromide, uses
     7699-45-8, Zinc bromide  7720-78-7, Iron(II) sulfate  7779-88-6, Zinc
     nitrate  7789-46-0, Iron(II) bromide  9002-89-5, Polyvinyl alcohol
     9003-01-4, Polyacrylic acid  9003-05-8, Polyacrylamide  9003-06-9,
     Acrylamide-acrylic acid copolymer  9003-09-2, Polyvinyl methyl ether
     9003-20-7, Polyvinyl acetate  9003-39-8, Poly-N-vinylpyrrolidone
     9004-62-0, Hydroxyethylcellulose  12619-70-4, Cyclodextrin  13138-45-9,
     Nickel(II) nitrate  13746-66-2  13963-58-1, Potassium hexacyanocobaltate
     14024-63-6, Zinc acetylacetonate  14039-23-7  20775-04-6
     21219-53-4  24979-70-2, Poly(4-vinylphenol)  25014-41-9,
     Polyacrylonitrile  25038-87-3, Polyvinyl methyl ketone  25085-34-1,
     Acrylic acid-styrene copolymer  25104-37-4, Polyvinyl ethyl ether
     25322-69-4, Polypropylene glycol  28062-44-4,
     N-Vinylpyrrolidone-acrylic acid copolymer 29132-58-9, Acrylic
     acid-maleic acid copolymer  660410-43-5
     RL: CAT (Catalyst use); USES (Uses)
        (double-metal cyanide catalysts which can be used to prepare polyols
        having reduced levels of high mol. weight fraction)
IT   25791-96-2P, Polypropylene glycol glycerol ether
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (double-metal cyanide catalysts which can be used to prepare polyols
        having reduced levels of high mol. weight fraction)
IT   14024-63-6, Zinc acetylacetonate 25322-69-4,
     Polypropylene glycol 29132-58-9, Acrylic acid-maleic acid
     copolymer
     RL: CAT (Catalyst use); USES (Uses)
        (double-metal cyanide catalysts which can be used to prepare polyols
        having reduced levels of high mol. weight fraction)
RN   14024-63-6  HCAPLUS
CN   Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI)  (CA INDEX
     NAME)
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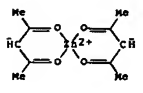

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RN   25322-69-4  HCAPLUS
CN   Poly[oxy(methyl-1,2-ethanediyl)], α-hydro-ω-hydroxy- (9CI)
     (CA INDEX NAME)
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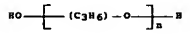

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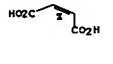
RN   29132-58-9  HCAPLUS
CN   2-Butenedioic acid (2Z)-, polymer with 2-propenoic acid (9CI)  (CA INDEX
     NAME)

     CM  1

     CRN  110-16-7
     CMF  C4 H4 O4

Double bond geometry as shown.
```

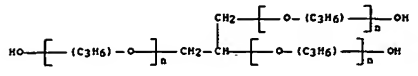


```
     CM  2

     CRN  79-10-7
     CMF  C3 H4 O2
```



```
IT   25791-96-2P, Polypropylene glycol glycerol ether
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (double-metal cyanide catalysts which can be used to prepare polyols
        having reduced levels of high mol. weight fraction)
RN   25791-96-2  HCAPLUS
CN   Poly[oxy(methyl-1,2-ethanediyl)], α,α',α''-1,2,3-
     propanetriyltris[ω-hydroxy- (9CI)  (CA INDEX NAME)
```



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REFERENCE COUNT:          23    THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
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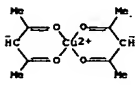
=> d ibib ed ab hitind hitstr 2-48
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' - CONTINUE? (Y)/N:y

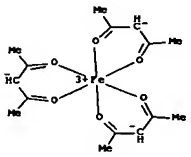
L162 ANSWER 2 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:264466 HCAPLUS Full-text
DOCUMENT NUMBER: 137:125778
TITLE: Synthesis and curing behaviors of a crosslinkable polymer from cashew nut shell liquid
AUTHOR(S): Ikeda, Ryohei; Tanaka, Hozumi; Uyama, Hiroshi; Kobayashi, Shiro
CORPORATE SOURCE: Japan Chemical Innovation Institute (JCII), Joint Research Center for Precision Polymerization (JRCPP), Ibaraki, Tsukuba, 305-8565, Japan
SOURCE: Polymer (2002), 43(12), 3475-3481
CODEN: POLMAG; ISSN: 0032-3861
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 10 Apr 2002
AB In the present study, we have oxidatively polymerized cashew nut shell liquid(CNSL), whose main component is cardanol, a phenol derivative having a meta substituent of a C15 unsatd. hydrocarbon chain with one to three double bonds as the major, and examined the curing behaviors of the resulting polymer. Fe-salen efficiently catalyzed the polymerization in bulk at room temperature to give a soluble crosslinkable polymer in a good yield. Various metal complexes also catalyzed the polymerization at 80 °C, although their catalytic activity was lower than that of Fe-salen. The curing by cobalt naphthenate catalyst or thermal treatment took place to give the crosslinked film (artificial urushi) with high hardness and gloss surface. In the curing of polyCNSL by the thermal treatment, the crosslinking behaviors and properties of the resulting film were similar to those of a com. available CNSL-formaldehyde resin.
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 44
IT Crosslinking
Crosslinking catalysts
Hardness (mechanical)
(crosslinkable polymer from cashew nut shell liquid)
IT **Polymerization catalysts**
(oxidative; crosslinkable polymer from cashew nut shell liquid)
IT **50-00-0D, Formaldehyde, polymers** with cashew nut shell liquid
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(crosslinked; crosslinkable **polymer** from cashew nut shell liquid)
IT 132-16-1, Iron(II) phthalocyanine 147-14-8, Copper(II) phthalocyanine **13395-16-9**, Copper(II) acetylacetonate 13930-88-6, Vanadyl(2+) phthalocyaninate **14024-18-1**, Iron(III) acetylacetonate **14024-48-7** 14167-12-5 14167-15-8 14167-18-1 14167-20-5 14167-22-7 **14284-89-0**, Manganese(III) acetylacetonate 14325-24-7 15279-88-6 36026-26-3 36913-44-7 55095-98-2 315202-88-1 315202-90-5 315202-91-6 315202-92-7
RL: **CAT (Catalyst use)**; USES (Uses)
(**polymerization catalyst**, oxidative; crosslinkable

polymer from cashew nut shell liquid)
IT **50-00-0D, Formaldehyde, polymers** with cashew nut shell liquid
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(crosslinked; crosslinkable **polymer** from cashew nut shell liquid)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

IT **13395-16-9**, Copper(II) acetylacetonate **14024-18-1**, Iron(III) acetylacetonate **14024-48-7** **14284-89-0**, Manganese(III) acetylacetonate
RL: **CAT (Catalyst use)**; USES (Uses)
(**polymerization catalyst**, oxidative; crosslinkable **polymer** from cashew nut shell liquid)
RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)

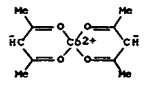


RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

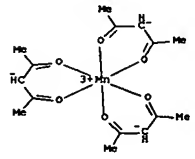


RN 14024-48-7 HCAPLUS

CN Cobalt, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



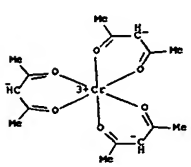
RN 14284-89-0 HCAPLUS
CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L162 ANSWER 3 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:799857 HCAPLUS Full-text
DOCUMENT NUMBER: 136:70155
TITLE: Electroorganic reactions. Part 55. Quinodimethane chemistry. Part 3. Transition metal complexes as inter- and intra-molecular redox catalysts for the electrosynthesis of poly(p-xylylene) (PPX) polymers and oligomers
AUTHOR(S): Janssen, Robert G.; Utley, James H. P.; Carre, Emmanuelle; Simon, Evelyne; Schirmer, Heike
CORPORATE SOURCE: Department of Chemistry, Queen Mary (University of London), London, E1 4NS, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 2 (2001), (9), 1573-1584
CODEN: JCSPGI; ISSN: 1472-779X
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 04 Nov 2001
AB The role of metal complexes as redox mediators in the electrosynthesis of poly(p-xylylenes) (PPXs) has been explored, with a view to designing metal-

containing precursors that can act both as mediators and starting materials for metal-containing polymers. A number of transition metal complexes [Cr(III), Ni(II) and Co(II)] are efficient redox catalysts for production of quinodimethanes, and hence PPXs. Following encouraging results from expts. using mediators based on anthranilic acid and salicylaldehyde ligands a macrocyclic compound was designed, and successfully prepared by a convergent route that incorporated both a 1,4-bis(chloromethylarene) function as a precursor to a quinodimethane and a Ni(II) salen unit as an intramol. redox catalyst. The macrocycle was successfully reduced cathodically to yield a PPX polymer with bound Ni(II). Evidence is presented for the operation of intramol. redox catalysis (homomediation).
CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 78
IT **Polymerization catalysts**
(redox; transition metal complexes as inter- and intra-mol. redox catalysts for electrosynthesis of poly(p-xylylene) polymers and oligomers)
IT 623-24-5 623-25-6 1592-31-0 3752-97-4 10025-73-7, Chromium chloride (CrCl3) 14167-18-1, Cobalt salen 14167-20-5, Nickel, [[2,2'-[1,2-ethanediylbis[(nitrilo-κN)methylidyne]]bis[phenolato-κO]](2-)]-, (SP-4-2)- **21679-31-2**, Chromium acetylacetonate 46045-95-8 173208-82-7
RL: PRP (Properties)
(cyclic voltammetry of; transition metal complexes as inter- and intra-mol. redox catalysts for electrosynthesis of poly(p-xylylene) polymers and oligomers)
IT 95-87-4, 2,5-Dimethylphenol 120-80-9, Catechol, reactions **30525-89-4**, **Paraformaldehyde**
RL: RCT (Reactant); RACT (Reactant or reagent)
(in catalyst preparation; transition metal complexes as inter- and intra-mol. redox catalysts for electrosynthesis of poly(p-xylylene) polymers and oligomers)
IT **383891-44-9P**, Bis(3,6-dimethylsalicylaldehydato)nickel(II)
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(transition metal complexes as inter- and intra-mol. redox catalysts for electrosynthesis of poly(p-xylylene) polymers and oligomers)
IT **21679-31-2**, Chromium acetylacetonate
RL: PRP (Properties)
(cyclic voltammetry of; transition metal complexes as inter- and intra-mol. redox catalysts for electrosynthesis of poly(p-xylylene) polymers and oligomers)
RN 21679-31-2 HCAPLUS
CN Chromium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

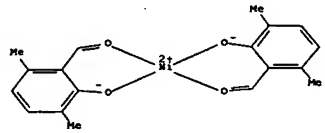


IT 30525-89-4, Paraformaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(in catalyst preparation; transition metal complexes as inter- and intra-mol. redox catalysts for electrosynthesis of poly(p-xylylene) polymers and oligomers)
RN 30525-89-4 HCAPLUS
CN Paraformaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 50-00-0
CMF C H2 O

IT 383891-44-9P, Bis(3,6-dimethylsalicylaldehydato)nickel(II)
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(transition metal complexes as inter- and intra-mol. redox catalysts for electrosynthesis of poly(p-xylylene) polymers and oligomers)
RN 383891-44-9 HCAPLUS
CN Nickel, bis[2-(hydroxy-κO)-3,6-dimethylbenzaldehydato-κO]-(9CI) (CA INDEX NAME)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

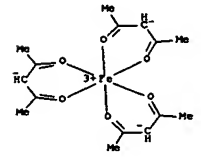
L162 ANSWER 4 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:553653 HCAPLUS Full-text
DOCUMENT NUMBER: 133:152163
TITLE: Isocyanate-containing binder for manufacture of particleboard or chipboard
INVENTOR(S): Maboka, Sydney
PATENT ASSIGNEE(S): Sappi Limited, S. Afr.
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

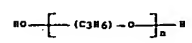
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000046306	A1	20000810	WO 2000-ZA19	20000208 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2361618	A1	20000810	CA 2000-2361618	20000208 <--
EP 1161498	A1	20011212	EP 2000-908809	20000208 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
ZA 200106522	A	20030317	ZA 2001-6522	20000208 <--
PRIORITY APPLN. INFO.:			ZA 1999-969	A 19990208 <--
			WO 2000-ZA19	W 20000208 <--

ED Entered STN: 11 Aug 2000
AB Title binder comprises Mᵉ diisocyanate (I) (sic) and one or more polyurethane catalyst selected from (a) one or more amine compound including aliphatic and aromatic tertiary amine derivs. of phenols, esters, ethers, alkenes and/or alcs.; and/or (b) one or more organometallic compds. of tin, bismuth, zinc, iron, and/or alkali metal salts, and, optionally, a reduced amount of urea-formaldehyde resin (II). Thus, production of chipboard in a production-plant trial using a II binder containing 0.5% (on bone-dry wood) water-emulsifiable I, 1.1% (on II) I, and 2,2-dimethylethanolamine catalyst showed a 14.3% increase in production speed.
IC ICM C08L097-02
ICS C08G018-16
CC 43-2 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 38
IT Crosslinking catalysts
(delayed action; isocyanate-containing binder for manufacture of particleboard or chipboard)
IT Polyoxyalkylenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(triols, polymers with MDI, TDI, urea and formaldehyde; isocyanate-containing binder for manufacture of particleboard or chipboard)
IT 64-19-7D, Acetic acid, alkali metal salts, uses 98-94-2, Polycat 8 124-68-5, 2,2-Dimethylethanolamine 280-57-9, Dabco 301-10-0, Stannous octoate 463-79-6D, Carbonic acid, alkali metal salts, uses 471-34-1, Calcium carbonate, uses 3164-85-0, Dabco K 15 4253-22-9 7439-89-6, Iron, uses 7440-31-5, Tin, uses 7440-31-5D, Tin, dialkyl thiocarboxylate, uses 7440-66-6, Zinc, uses 7440-69-9, Bismuth, uses 14024-18-1, Ferric acetylacetonate 62314-25-4, Dabco TMR 2 157974-73-7, Dabco DC 2
RL: CAT (Catalyst use); USES (Uses)
(crosslinking catalyst; isocyanate-containing binder for manufacture of particleboard or chipboard)
IT 50-00-0D, Formaldehyde, polymers with MDI, polypropylene glycol triols, TDI and urea, uses 57-13-6D, Urea, polymers with MDI, polypropylene glycol triols, TDI and formaldehyde, uses 101-68-8D, MDI, polymers with polypropylene glycol triols, TDI, urea and formaldehyde 25322-69-4D, Polypropylene glycol, triols, polymers

with MDI, TDI, urea and formaldehyde 26471-62-5D, TDI, polymers with MDI, polypropylene glycol triols, urea and formaldehyde 66160-82-5, Formaldehyde-MDI-TDI-urea copolymer 66160-84-7, Diphenylmethane diisocyanate-formaldehyde-urea copolymer 287476-25-9, Formaldehyde-MDI-polypropylene glycol-urea copolymer 287476-26-0, Formaldehyde-MDI-polyethylene glycol-urea copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(isocyanate-containing binder for manufacture of particleboard or chipboard)
IT 14024-18-1, Ferric acetylacetonate
RL: CAT (Catalyst use); USES (Uses)
(crosslinking catalyst; isocyanate-containing binder for manufacture of particleboard or chipboard)
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



IT 25322-69-4D, Polypropylene glycol, triols, polymers with MDI, TDI, urea and formaldehyde
RL: TEM (Technical or engineered material use); USES (Uses)
(isocyanate-containing binder for manufacture of particleboard or chipboard)
RN 25322-69-4 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], α-hydro-ω-hydroxy- (9CI) (CA INDEX NAME)



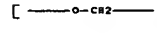
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L162 ANSWER 5 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:294970 HCAPLUS Full-text
DOCUMENT NUMBER: 128:295107
TITLE: Polymerization of formaldehyde using tetravalent organo-tin compounds as an initiator
AUTHOR(S): Matsuzaki, Kazuhiko; Masamoto, Junzo

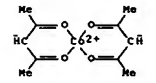
CORPORATE SOURCE: Department of Polyacetal Research and Development, Asahi Chemical Industry Co., Ltd., Kurashiki, 711, Japan
SOURCE: Industrial & Engineering Chemistry Research (1998), 37(5), 1729-1735
CODEN: IECRED; ISSN: 0888-5885
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 21 May 1998
AB Polymerization of gaseous formaldehyde in hexane using various initiators including tetravalent organo-tin compds. was investigated. The end group of the obtained polymer was examined and it was concluded that the chain-transfer agents (such as methanol, etc.) were almost completely consumed during the polymerization of gaseous formaldehyde. Only two series of initiators, quaternary ammonium salt and dialkyltin dimethoxide compds., produced a polymer with a narrow-mol.-weight distribution (Mw/Mn = 2). The polymer with the narrow-mol.-weight distribution (Mw/Mn = 2)produced a product with high Dart impact strength. The polymer with the broad-mol.-weight distribution (Mw/Mn > 2.9) gave the product with low Dart impact strength.
CC 35-3 (Chemistry of Synthetic High Polymers)
ST formaldehyde polymn tin catalyst; polyformaldehyde impact strength polydispersity
IT Chain transfer agents
Polymerization
Polymerization catalysts
Polymerization kinetics
(kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)
IT Impact strength
(polymerization catalyst effect on impact strength and mol. weight distribution of polyformaldehyde)
IT Polyoxymethylenes, properties
RL: PRP (Properties)
(polymerization catalyst effect on impact strength and mol. weight distribution of polyformaldehyde)
IT 67-56-1, Methanol, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(chain transfer agent; kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)
IT 110-54-3, Hexane, uses
RL: NUU (Other use, unclassified); USES (Uses)
(kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)
IT 50-00-0, Formaldehyde, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)
IT 9002-81-7, Formaldehyde homopolymer
RL: PRP (Properties)
(polymerization catalyst effect on impact strength and mol. weight distribution of polyformaldehyde)
IT 77-58-7, Dibutyltin dilaurate 1067-55-6, Dibutyltin dimethoxide 3090-36-6, Tributyltin laurate 3648-18-8, Dioctyltin dilaurate 13308-45-7, Dimethyldioctadecylammonium acetate 14024-48-7
RL: CAT (Catalyst use); USES (Uses)
(polymerization catalyst; kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)

IT 50-00-0, Formaldehyde, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

IT 9002-81-7, Formaldehyde homopolymer
RL: PRP (Properties)
(polymerization catalyst effect on impact strength and mol. weight distribution of polyformaldehyde)
RN 9002-81-7 HCAPLUS
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



IT 14024-48-7
RL: CAT (Catalyst use); USES (Uses)
(polymerization catalyst; kinetics and mechanism of polymerization of gaseous formaldehyde in hexane)
RN 14024-48-7 HCAPLUS
CN Cobalt, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L162 ANSWER 6 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:647940 HCAPLUS Full-text
DOCUMENT NUMBER: 123:33862
TITLE: Polymerization of, and depolymerization to, cyclic ethers using selected catalysts
INVENTOR(S): Drysdale, Neville Everton; Bockrath, Richard Edmund
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9409055	A2	19940428	WO 1993-US9808	19931020 <--
WO 9409055	A3	19940721		
W: JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 665859	A1	19950809	EP 1993-924316	19931020 <--
EP 665859	B1	20020109		
R: DE, ES, GB, NL				
JP 08502531	T	19960319	JP 1994-510252	19931020 <--
JP 3310292	B2	20020805		
EP 1029881	A2	20000823	EP 2000-201220	19931020 <--
EP 1029881	A3	20010704		
EP 1029881	B1	20040512		
R: DE, ES, GB, NL				
ES 2166765	T3	20020501	ES 1993-924316	19931020 <--
ES 2220334	T3	20041216	ES 2000-201220	19931020 <--
US 5541346	A	19960730	US 1995-424918	19950419 <--
US 5635585	A	19970603	US 1995-424675	19950419 <--
US 5770678	A	19980623	US 1996-762813	19961209 <--
HK 1027584	A1	20050107	HK 2000-106789	20001025 <--
PRIORITY APPLN. INFO.:			US 1992-964313 A2	19921021 <--
			US 1993-21368 A2	19930223 <--
			US 1993-93243 A2	19930716 <--
			US 1993-93119 B2	19930716 <--
			EP 1993-924316 A3	19931020 <--
			WO 1993-US9808 W	19931020 <--
			US 1993-141160 B2	19931021 <--
			US 1994-198024 B2	19940217 <--
			US 1994-283108 A3	19940729 <--
			US 1995-424675 A1	19950419 <--

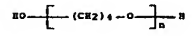
OTHER SOURCE(S): MARPAT 123:33862
ED Entered STN: 01 Jul 1995
AB Oxiranes, oxetanes, oxepanes, dioxolanes, trioxanes, and tetrahydrofurans are converted to their resp. polymers by contacting them with (1) certain metal perfluoroalkylsulfonates or tetraphenylborates and (2) carboxylic acids with pKa <6, acid anhydrides, or acid halides; polytetrahydrofurans are depolymd. to monomeric tetrahydrofurans by contacting the polymer with a similar catalyst at 100-250°. THF was polymerized at room temperature in 56.76% yield to a polymer with weight-average mol. weight 17,100 in 15 min by Y(O3SCF3)3 in the presence of Ac2O.
IC ICM C08G065-10
ICS C08G065-26; C08G065-32; C07D307-08
CC 35-3 (Chemistry of Synthetic High Polymers)
IT 24979-97-3P, Polytetrahydrofuran 25190-06-1P
38640-26-5P, 3-Methyltetrahydrofuran-tetrahydrofuran copolymer
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(catalysts for manufacture and depolymn. of)
IT 9002-81-7P, 1,3,5-Trioxane homopolymer 25067-64-5P, 1,3-Dioxolane homopolymer 25607-91-4P, Poly(3-methyltetrahydrofuran) 25702-20-9P, Poly(cyclohexene oxide) 26007-62-5P, 7-Oxabicyclo[2.2.1]heptane homopolymer 31762-63-7P, Oxepane homopolymer, SRU 33807-31-7P, Oxepane homopolymer 69772-75-4P, Poly(3-methyltetrahydrofuran), SRU
RL: IMF (Industrial manufacture); PREP (Preparation)

(catalysts for manufacture of)
IT 1686-23-3DP, Oxotripropoxyvanadium, reaction products with triflic acid 2377-86-8P 7440-64-4DP, Ytterbium, nafion salt derivs. 42196-31-6P 60826-40-6P 60884-91-5P 111287-32-2P 164326-81-2P 164326-83-4P 164326-84-5P 164326-85-6P 164326-86-7P 164326-90-3P 164326-91-4P 164326-92-5P 164385-22-2P 164385-23-3P 164385-24-4P 164385-25-5P 164385-26-6P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(polymerization of cyclic ethers with catalysts from)
IT 24979-97-3P, Polytetrahydrofuran 25190-06-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(catalysts for manufacture and depolymn. of)
RN 24979-97-3 HCAPLUS
CN Furan, tetrahydro-, homopolymer (9CI) (CA INDEX NAME)

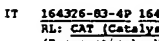
CM 1

CRN 109-99-9
CMF C4 H8 O

RN 25190-06-1 HCAPLUS
CN Poly(oxy-1,4-butanediyl), α-hydro-ω-hydroxy- (9CI) (CA INDEX NAME)

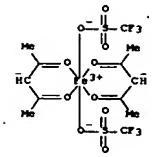


IT 9002-81-7P, 1,3,5-Trioxane homopolymer
RL: IMF (Industrial manufacture); PREP (Preparation)
(catalysts for manufacture of)
RN 9002-81-7 HCAPLUS
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)

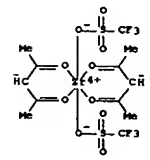


IT 164326-83-4P 164326-90-3P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(polymerization of cyclic ethers with catalysts from)
RN 164326-83-4 HCAPLUS

CN Ferrate(1-), bis(2,4-pentanedionato-O,O')bis(trifluoromethanesulfonato-O)-, hydrogen (9CI) (CA INDEX NAME)



RN 164326-90-3 HCAPLUS
CN Zirconium, bis(2,4-pentanedionato-O,O')bis(trifluoromethanesulfonato-O)-(9CI) (CA INDEX NAME)



L162 ANSWER 7 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:561644 HCAPLUS Full-text
DOCUMENT NUMBER: 119:161644
TITLE: Curable phenolic resin compositions for use as molds and manufacture of molds
INVENTOR(S): Funada, Hitoshi; Yoshida, Akira; Kiuchi, Kazuhiko; Tanaka, Tsutomu; Nakai, Shigeo
PATENT ASSIGNEE(S): Kao Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05023787	A	19930202	JP 1991-180957	19910722 <--
JP 2898795	B2	19990602		
PRIORITY APPLN. INFO.:			JP 1991-180957	19910722 <--

ED Entered STN: 16 Oct 1993

AB Ester-curable compns. are manufactured by polycondensation of phenols with aldehydes in 3 steps involving combinations of acidic media with bivalent metal ion catalysts, basic media with alkali catalysts, and in the presence of 5-50,000 ppm compds. of group III or higher metals . Thus, polymerizing phenol with paraformaldehyde in water in the presence of Zn(OAc)2, continuing the polymerization in the presence of 2000 ppm Al(OH)3, and further continuing the polymerization in the presence of KOH gave a solution of a polymer (I) with weight-average mol. weight 2300, to which was added NH2(CH2)3Si(OEt)3. A composition containing used sand 100, triacetin curing agent 0.375, and I 1.5 parts was cured to give a sample with compressive strength 31 kg/cm2.

IC ICM B22C001-22
ICS B22C009-02; C08G008-10; C08K005-10

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 56

ST phenolic resin prepn catalyst; ester curable phenolic resin; sand phenolic resin mold; zinc acetate catalyst polymn phenol formaldehyde; aluminum hydroxide catalyst polymn phenol formaldehyde; potassium hydroxide catalyst polymn phenol formaldehyde; triacetin curable phenolic resin

IT Polymerization catalysts
(bivalent metal compds. and alkali compds., and compds. of group III or higher metals, for phenols with aldehydes in 3 steps)

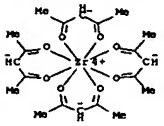
IT 546-67-8 546-68-9, Tetra(isopropoxy) titanium 557-34-6, Zinc acetate 2570-63-0 7646-78-8, Tin tetrachloride, uses 7705-08-0, Ferric chloride, uses 10026-11-6 10043-01-3, Aluminum sulfate 10102-71-3, Sodium aluminum sulfate 13450-90-3, Gallium chloride (GaCl3) 13499-05-3, Hafnium tetrachloride 14881-07-3 17501-44-9 21645-51-2, Aluminum trihydroxide, uses 22519-64-8 23363-14-6 33791-56-9 60800-19-3, Zirconium aluminate 150147-59-4 150172-52-4
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for 3-step polymerization of formaldehyde with phenol)

IT 9003-35-4P, Formaldehyde-phenol copolymer
RL: PREP (Preparation)
(preparation of ester-curable, 3-step, catalysts for)

IT 17501-44-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for 3-step polymerization of formaldehyde with phenol)

RN 17501-44-9 HCAPLUS

CN Zirconium, tetrakis(2,4-pentanedionato-κO,κO')-, (SA-8-11''11''1'1'''1'1''')- (9CI) (CA INDEX NAME)



L162 ANSWER 8 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:618223 HCAPLUS Full-text
DOCUMENT NUMBER: 107:218223
TITLE: Repolymerization
INVENTOR(S): Sugerman, Gerald; Monte, Salvatore J.
PATENT ASSIGNEE(S): Kenrich Petrochemicals, Inc., USA
SOURCE: U.S., 17 pp. Cont.-in-part of U.S. Ser. No. 725,437.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4657988	A	19870414	US 1986-834794	19860228 <--
US 4600789	A	19860715	US 1984-609727	19840514 <--
US 4623738	A	19861118	US 1985-725437	19850422 <--
NO 8501845	A	19851115	NO 1985-1845	19850509 <--
NO 167393	B	19910722		
NO 167393	C	19911030		
ZA 8503532	A	19861230	ZA 1985-3532	19850509 <--
IN 170651	A1	19920502	IN 1985-DE389	19850509 <--
CA 1237140	A1	19880524	CA 1985-481428	19850513 <--
AU 8542475	A	19851121	AU 1985-42475	19850514 <--
AU 575165	B2	19880721		
JP 61022093	A	19860130	JP 1985-102527	19850514 <--
JP 03080159	B	19911224		
CN 85104987	A	19861119	CN 1985-104987	19850701 <--
CN 1005712	B	19891108		
ZA 8701227	A	19880928	ZA 1987-1227	19870219 <--
IN 168165	A1	19910216	IN 1987-DE147	19870219 <--
BR 8700877	A	19871229	BR 1987-877	19870224 <--
EP 240137	A2	19871007	EP 1987-301634	19870225 <--
EP 240137	A3	19901003		
EP 240137	B1	19980805		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 169305	T	19980815	AT 1987-301634	19870225 <--
ES 2121731	T3	19981216	ES 1987-301634	19870225 <--
NO 8700808	A	19870831	NO 1987-808	19870226 <--
AU 8769521	A	19870903	AU 1987-69521	19870227 <--
JP 62218452	A	19870925	JP 1987-45114	19870227 <--
IL 81712	A	19910630	IL 1987-81712	19870227 <--
CN 87101599	A	19880601	CN 1987-101599	19870228 <--
CA 1277081	C	19901127	CA 1987-530953	19870302 <--

IN 170585	A1	19920418	IN 1987-DE1123	19871223 <--
JP 02138285	A	19900528	JP 1989-238325	19890913 <--
JP 06000791	B	19940105		
JP 05339421	A	19931221	JP 1991-226650	19910318 <--
JP 08034745	B	19960329		
PRIORITY APPLN. INFO.:			US 1984-609727	A2 19840514 <--
			US 1985-725437	A2 19850422 <--
			US 1984-651119	A2 19840914 <--
			IN 1985-DE389	A 19850509 <--
			US 1986-834794	A 19860228 <--

ED Entered STN: 12 Dec 1987

AB Polymers such as polyesters, polyoxyphenylenes, and polyurethanes are repolymd., improving phys. and thermal properties and solvolysis resistance, by intense mixing with 0.005-5% RCR1R2CH2OMR3aR4bR5c (M = Ti or Zr; R-R2 = hydrocarbyl; R3-R5 = aryloxy, arylthio, diester phosphate, etc.; a + b + c = 3). Mixing poly(butylene terephthalate) with 0.3% (neo-C9H19CO2)3TiOCH2C(Et)(CH2OCH2CH:CH2)2 (I) at 240-260° in an extruder, injection molding at 240°, and annealing 48 h at 100° gave moldings with tensile strength 74 MPa, flexural strength 91 MPa, flexural modulus 2.5 GPa, notched Izod impact strength 1.5 kJ/m, and elongation 360%; vs. 69, 83, 2.3, 1.0, and 260, resp., without I.

IC ICM C08G063-76
INCL 525437000

CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 23, 25, 37

IT Acrylic polymers, preparation
Polycarbonates, preparation
Polyesters, reactions
Polyoxymethylenes, preparation
Polyoxyphenylenes
Rubber, urethane, preparation
Siloxanes and Silicones, preparation
Urethane polymers, preparation
RL: PREP (Preparation)
(post-polymerization of, catalysts for)

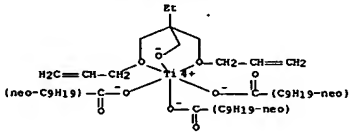
IT Polymerization catalysts
(post-, titanates and zirconates, for improved polymer properties)

IT 103171-84-2 103245-61-0 103334-85-6 103352-36-9 103372-06-1 103373-95-1 103406-72-0 103406-73-1 103406-74-2 103455-07-8 103538-14-3 107525-86-0 107541-22-0 110438-25-0 110880-65-4 110880-68-7 111016-83-2 111053-49-7 111053-50-0 111083-73-9 111083-74-0 111083-75-1 111083-76-2 111083-77-3 111083-78-4
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for post-polymerization)

IT 103334-85-6 103352-36-9 103372-06-1 103373-95-1 103406-73-1 103406-74-2 103538-14-3 107525-86-0 107541-22-0 110438-25-0 111053-49-7 111083-77-3 111083-78-4
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for post-polymerization)

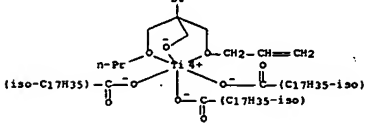
RN 103334-85-6 HCAPLUS

CN Titanium, [2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]tris(neodecanoato-κO)- (9CI) (CA INDEX NAME)



RN 103352-36-9 HCAPLUS

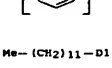
CN Titanium, tris(isooctadecanoato-O)[2-[(2-propenyloxy)methyl]-2-(propoxymethyl)-1-butanolato-O,O',O'']- (9CI) (CA INDEX NAME)



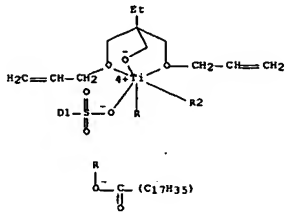
RN 103372-06-1 HCAPLUS

CN Titanium, [2,2-bis[(2-propenyloxy)methyl]-1-butanolato-O,O',O'']bis(dodecylbenzenesulfonato-O)(isooctadecanoato-O)- (9CI) (CA INDEX NAME)

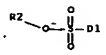
PAGE 1-A



PAGE 2-A

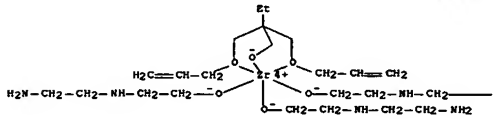


PAGE 3-A



RN 103373-95-1 HCAPLUS
CN Zirconium, tris[2-[(2-aminoethyl)amino]ethanolato-κO][2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]-, (OC-6-22)- (9CI) (CA INDEX NAME)

PAGE 1-A

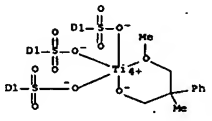


PAGE 1-B

RN 103406-73-1 HCAPLUS
CN Titanium, tris(dodecylbenzenesulfonato-O)[β-(methoxymethyl)-β-methylbenzeneethanolato-O,O']- (9CI) (CA INDEX NAME)

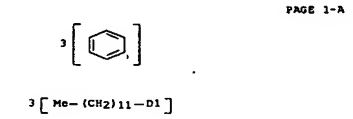
PAGE 1-A

PAGE 2-A

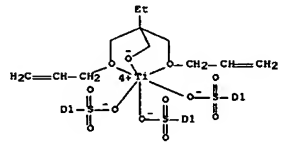


RN 103406-74-2 HCAPLUS
CN Titanium, [2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]tris(dodecylbenzenesulfonato-κO)- (9CI) (CA INDEX NAME)

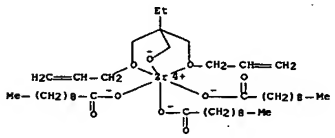
PAGE 1-A



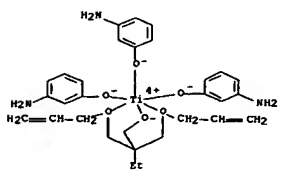
PAGE 2-A



RN 103538-14-3 HCAPLUS
CN Zirconium, [2,2-bis[(2-propenyloxy)methyl]-1-butanolato-O,O',O'']tris(decanoato-O)- (9CI) (CA INDEX NAME)

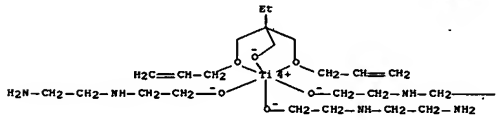


RN 107525-86-0 HCAPLUS
CN Titanium, tris(3-aminophenolato-κO)[2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]-, (OC-6-22)- (9CI) (CA INDEX NAME)



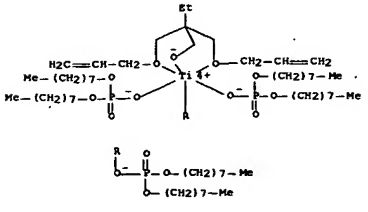
RN 107541-22-0 HCAPLUS
CN Titanium, tris[2-[(2-aminoethyl)amino]ethanolato-κO][2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]-, (OC-6-22)- (9CI) (CA INDEX NAME)

PAGE 1-A

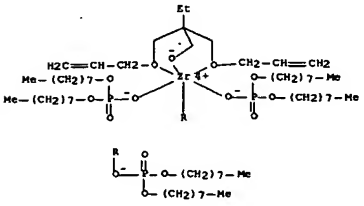


PAGE 1-B

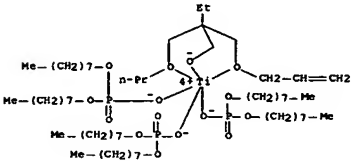
RN 110438-25-0 HCAPLUS
CN Titanium, [2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]tris(dioctyl phosphato-κO'')-, (OC-6-32)- (9CI) (CA INDEX NAME)



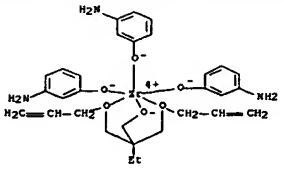
RN 111053-49-7 HCAPLUS
CN Zirconium, [2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]tris(dioctyl phosphato-κO'')- (9CI) (CA INDEX NAME)



RN 111083-77-3 HCAPLUS
CN Titanium, tris(dioctyl phosphato-O'')[2-[(2-propenyloxy)methyl]-2-(propoxymethyl)-1-butanolato-O,O',O'']- (9CI) (CA INDEX NAME)



RN 111083-78-4 HCAPLUS
CN Zirconium, tris(3-aminophenolato-κO)[2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]-, (OC-6-22)- (9CI) (CA INDEX NAME)

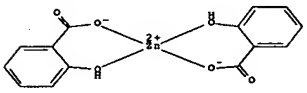


L162 ANSWER 9 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1985:505439 HCAPLUS Full-text
DOCUMENT NUMBER: 103:105439
TITLE: Phenol-formaldehyde resin
PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 2 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60099118	A	19850603	JP 1983-205878	19831104 <--
JP 05069848	B	19931001		

PRIORITY APPLN. INFO.: JP 1983-205878 19831104 <--
ED Entered STN: 04 Oct 1985
AB PhOH-HCHO resin (I) [9003-35-4] is produced without difficulties caused by catalyst precipitation and scale formation by condensation of 100 parts of phenol with 20-70 parts of HCHO, using Zn salts of aromatic carboxylic acids as the catalyst. Thus, 100 parts 100:54.8 mixture of phenol and paraformaldehyde and 7.3 parts 100:2 mixture of phenol and zinc salicylate (II) [16283-36-6] were mixed at 100°, then fed at 15 L/h to a 50-L stirred reactor at 105°, from which the mixture was transferred to a 2nd reactor at 125°, and then to a third reactor at 80-90°/50 mm, in which the H2O of polycondensation was evaporated along with excess phenol, and the resulting I was diluted with 1:1 isophorone and Hisol 100. No clogging of pipes or valves occurred during 330 h continuous operation, in contrast to a process using Pb naphthenate instead of II.
IC ICM C08G008-08
ICA C08G018-54
CC 35-3 (Chemistry of Synthetic High Polymers)
IT Polymerization catalysts
(zinc salts of aromatic carboxylic acids, precipitation-resistant, for continuous
manufacture of phenol-formaldehyde copolymers)
IT 16283-36-6
RL: CAT (Catalyst use); USES (Uses)
(catalysts, precipitation-resistant, for continuous manufacture of phenol-formaldehyde resins)
IT 16283-36-6
RL: CAT (Catalyst use); USES (Uses)

(catalysts, precipitation-resistant, for continuous manufacture of phenol-formaldehyde resins)
RN 16283-36-6 HCAPLUS
CN Zinc, bis[2-(hydroxy-κO)benzoato-κO]-, (T-4)- (9CI) (CA INDEX NAME)



L162 ANSWER 10 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1986:479892 HCAPLUS Full-text
DOCUMENT NUMBER: 105:79892
TITLE: Neoalkoxy organotitanates and organozirconates useful as coupling and polymer processing agents
INVENTOR(S): Sugerman, Gerald; Monte, Salvatore J.
PATENT ASSIGNEE(S): Kenrich Petrochemicals, Inc., USA
SOURCE: Eur. Pat. Appl., 56 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 164227	A2	19851211	EP 1985-303352	19850513 <--
EP 164227	A3	19870902		
EP 164227	B1	19900816		
R: BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4600789	A	19860715	US 1984-609727	19840514 <--
US 4623738	A	19861118	US 1985-725437	19850422 <--
NO 8501845	A	19851115	NO 1985-1845	19850509 <--
NO 167393	B	19910722		
NO 167393	C	19911030		
ZA 8503532	A	19861230	ZA 1985-3532	19850509 <--
IN 170651	A1	19920502	IN 1985-DE389	19850509 <--
CA 1237140	A1	19880524	CA 1985-481428	19850513 <--
AU 8542475	A	19851121	AU 1985-42475	19850514 <--
AU 575165	B2	19880721		
JP 61022093	A	19860130	JP 1985-102527	19850514 <--
JP 03080159	B	19911224		
CN 85104987	A	19861119	CN 1985-104987	19850701 <--
CN 1005712	B	19891108		
IN 170585	A1	19920418	IN 1987-DE1123	19871223 <--
JP 02138285	A	19900528	JP 1989-238325	19890913 <--
JP 06000791	B	19940105		
JP 05339421	A	19931221	JP 1991-226650	19910318 <--
JP 08034745	B	19960329		

PRIORITY APPLN. INFO.: US 1984-609727 A 19840514 <--
US 1985-725437 A 19850422 <--

US 1984-651119 A2 19840914 <--
IN 1985-DE389 A 19850509 <--
ED Entered STN: 06 Sep 1986
AB A neoalkoxy compound RCR1R2CH2OMAaBbCc (M = Ti or Zr; each R, R1, and R2 = C1-20 hydrocarbyl, optionally halo- or ether-substituted, and R2 may also be an oxy or ether-substituted oxy derivative; each A, B, and C = monovalent acyloxy, thioacyloxy, diester phosphate or pyrophosphate, oxyalkylamino, sulfonyl, or carboxyl; a + b + c = 3) has good thermal and solvolytic stability, is useful for compounding with polymers at high temps. (>200°), and is also useful in peroxide-cured or air-cured polymerization systems for coupling fillers to polymer and, in some cases, accelerating the polymerization. Thus, 1 mol TiCl4 was added to a xylene solution of 1 mol Me3CCH2OH and 3 mol HOP(O)(OC8H17)2 during 2 h at 45-60° in N and kept for an addnl. 2 h. The mixture was heated in vacuo to evaporate the solvent, giving Me3CCH2OTi[OP(O)(OC8H17)2]3 (I) (87% yield). The compound had solvolysis resistance in BuOH (time required for disappearance of 50% solute at 25°) 48 h, vs. 0.1 h for Me2CHOTi[OP(O)(OC8H17)2]3 (II). A composition comprising ABS resin 59.8, talc 40.0, and 65:35 I-silica powder mixture 0.2% was injection molded at 230° to give a molding having tensile strength 42 MPa, elongation 35%, flexural strength 78 MPa, flexural modulus 2.4 GPa, and notched Izod impact strength 0.4 kJ/m, vs. 37, 28, 70, 2.2, and 0.3, resp., for a composition prepared with II instead of I.
IC ICM C07F007-00
ICS C07F009-09; C08F008-42; C08G085-00; C08K005-06; C08K005-52; C08K005-17; C08K005-41; C08K005-09; C08K005-05; C08K009-04
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 23, 29
IT Phenolic resins, uses and miscellaneous
Polycarbonates
Polyesters, uses and miscellaneous
Polyoxymethylenes, uses and miscellaneous
Polyoxyphenylenes
Urethane polymers, uses and miscellaneous
RL: USES (Uses)
(titanates and zirconates containing neoalkyl groups as coupling and processing agents in)
IT Coupling agents
Crosslinking catalysts
Fireproofing agents
Heat stabilizers
Polymerization catalysts
(titanates and zirconates, preparation and use in polymer compns.)
IT 103171-76-2P 103171-84-2P 103194-10-1P 103245-60-9P 103245-61-0P 103334-85-6P 103352-36-9P 103372-06-1P 103373-95-1P 103406-71-9P 103406-72-0P 103406-73-1P 103406-74-2P 103432-53-7P 103432-54-8P 103455-06-7P 103455-07-8P 103455-10-3P 103475-10-1P 103475-12-3P 103538-14-3P 103850-22-2P 107525-86-0P 107541-22-0P 111083-78-4P
RL: PREP (Preparation)
(preparation of heat- and solvolysis-resistant, as coupling and polymer processing agents)
IT 7440-32-6D, reaction products with trimethylolpropane Pr allyl ether 15969-68-3 68443-46-9 103130-80-9 103171-78-4 103171-79-5 103171-80-8 103245-59-6D, reaction product with titanium 103373-94-0 103445-10-9 103455-09-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with titanium salts of acids and alcs.)
IT 103171-77-3 103407-42-7 103427-18-5 103445-09-6 103455-08-9 103475-11-2

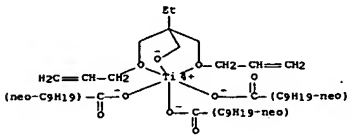
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with zirconium salts of acids and esters)

IT 103334-85-6P 103352-36-9P 103372-06-1P
103373-95-1P 103406-73-1P 103406-74-2P
103475-10-1P 103475-12-3P 103538-14-3P
103850-22-2P 107525-86-0P 107541-22-0P
111083-78-4P

RL: PREP (Preparation)
(preparation of heat- and solvolysis-resistant, as coupling and polymer processing agents)

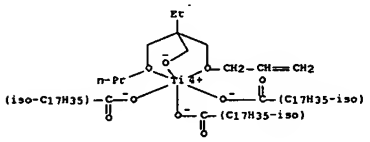
RN 103334-85-6 HCAPLUS

CN Titanium, [2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]tris(neodecanoato-κO)- (9CI) (CA INDEX NAME)



RN 103352-36-9 HCAPLUS

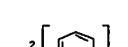
CN Titanium, tris(isooctadecanoato-O)[2-[(2-propenyloxy)methyl]-2-(propoxymethyl)-1-butanolato-O,O',O'']- (9CI) (CA INDEX NAME)



RN 103372-06-1 HCAPLUS

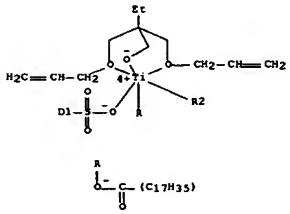
CN Titanium, [2,2-bis[(2-propenyloxy)methyl]-1-butanolato-O,O',O'']bis(dodecylbenzenesulfonato-O)(isooctadecanoato-O)- (9CI) (CA INDEX NAME)

PAGE 1-A

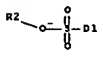


2 [Me-(CH2)11-D1]

PAGE 2-A



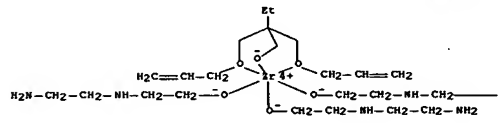
PAGE 3-A



RN 103373-95-1 HCAPLUS

CN Zirconium, tris[2-[(2-aminoethyl)amino]ethanolato-κO][2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]-, (OC-6-22)- (9CI) (CA INDEX NAME)

PAGE 1-A



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—CH2—NH2

RN 103406-73-1 HCAPLUS

CN Titanium, tris(dodecylbenzenesulfonato-O)[β-(methoxymethyl)-β-methylbenzeneethanolato-O,O']- (9CI) (CA INDEX NAME)

PAGE 1-A

3 [Me-(CH2)11-D1]

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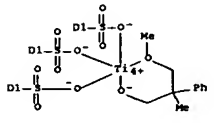

RN 103406-74-2 HCAPLUS

CN Titanium, [2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]tris(dodecylbenzenesulfonato-κO)- (9CI) (CA INDEX NAME)

PAGE 1-A

3 [Me-(CH2)11-D1]

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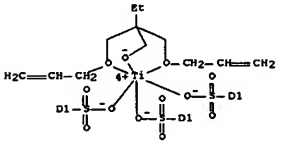
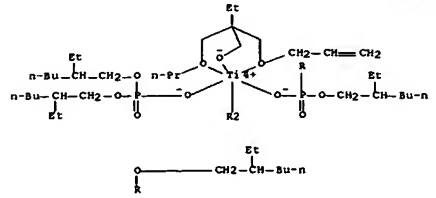


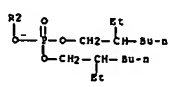
RN 103475-10-1 HCAPLUS

CN Titanium, tris[bis(2-ethylhexyl) phosphato-O'']bis[2-[(2-propenyloxy)methyl]-2-(propoxymethyl)-1-butanolato-O,O',O'']- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



RN 103475-12-3 HCAPLUS
CN Zirconium, tris[bis(2-ethylhexyl) phosphito-O'']tris[2,2-bis[(2-propenyloxy)methyl]-1-butanolato-O,O',O'']- (9CI) (CA INDEX NAME)

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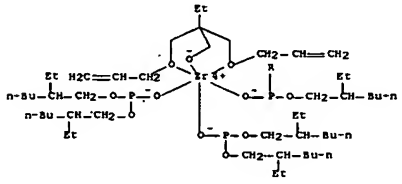
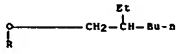
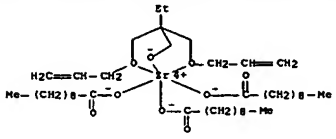


PAGE 2-A



RN 103538-14-3 HCAPLUS
CN Zirconium, [2,2-bis[(2-propenyloxy)methyl]-1-butanolato-O,O',O'']tris(decanoato-O)- (9CI) (CA INDEX NAME)



RN 103850-22-2 HCAPLUS
CN Titanium, tris[bis(2-ethylhexyl) phosphato-κO'']tris[2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]- (9CI) (CA INDEX NAME)

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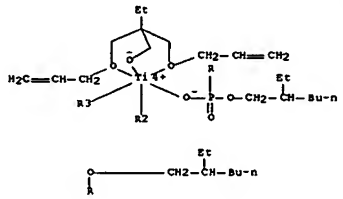
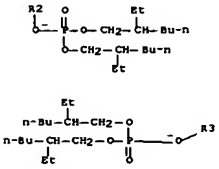
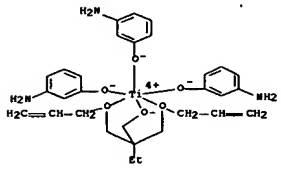


PAGE 2-A



RN 107525-86-0 HCAPLUS

CN Titanium, tris[3-aminophenolato-κO][2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]-, (OC-6-22)- (9CI) (CA INDEX NAME)



RN 107541-22-0 HCAPLUS
CN Titanium, tris[2-[(2-aminoethyl)amino]ethanolato-κO][2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]-, (OC-6-22)- (9CI) (CA INDEX NAME)

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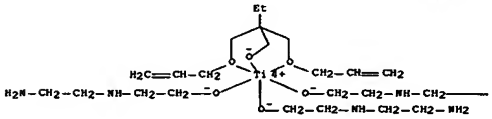

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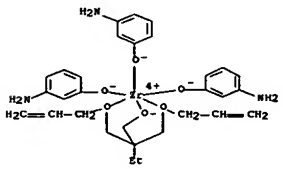
RN 111083-78-4 HCAPLUS
CN Zirconium, tris(3-aminophenolato-κO)[2,2-bis[(2-propenyloxy-κO)methyl]-1-butanolato-κO]-, (OC-6-22)- (9CI) (CA INDEX NAME)



IT 68443-46-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with titanium salts of acids and alcs.)
RN 68443-46-9 HCAPLUS
CN Titanium, bis[2,2-bis[(2-propenyloxy)methyl]-1-butanolato-κO]bis[2-[(2-propenyloxy-κO)methyl]-2-[(2-propenyloxy)methyl]-1-butanolato-κO]- (9CI) (CA INDEX NAME)

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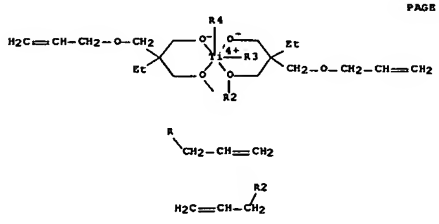

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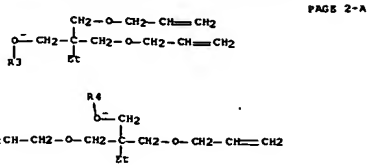

IT 103475-11-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with zirconium salts of acids and esters)
RN 103475-11-2 HCAPLUS
CN Zirconium, bis[2,2-bis[(2-propenyloxy)methyl]-1-butanolato-κO]bis[2-[(2-propenyloxy-κO)methyl]-2-[(2-propenyloxy)methyl]-1-butanolato-κO]- (9CI) (CA INDEX NAME)

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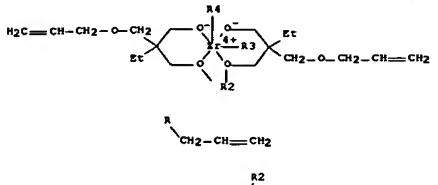

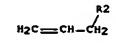

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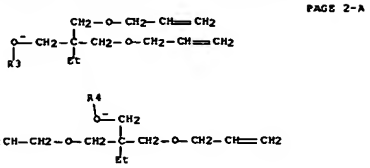
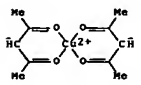


L162 ANSWER 11 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:192557 HCAPLUS Full-text
DOCUMENT NUMBER: 100:192557
TITLE: Polyoxymethylene particle size control
PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59015420	A	19840126	JP 1982-122884	19820716 <--
JP 62031726	B	19870710		
PRIORITY APPLN. INFO.:			JP 1982-122884	19820716 <--

ED Entered STN: 08 Jun 1984
AB HCHO is polymerized with cyclic ethers in the presence of polyoxymethylenes, metal chelates, and Lewis acids (chelate-acid mol ratio >5 + 10-4:1) to give large copolymer particles. Thus, 20 g HCHO-1,3,6-trioxocane copolymer (I) [28157-39-3] (intrinsic viscosity (p-ClC6H4OH, 60°) 1.50 dL/g, base stability (weight retention after 1 h at 160° in PhCH2OH containing 1% Bu3N) 92%] was dried at 60° for 3 h in vacuo, heated to 80°, and fed with 6 mL/h 10-4M Cu(acac)2 [13395-16-9], 1 mL/h 0.1M BF3.Et2O [109-63-7] (in toluene), 3.4 mL/h 1,3,6-trioxocane, and 62 g/h HCHO with removal of a corresponding amount of reaction mixture for 5 h to give 320 g I with intrinsic viscosity 1.53 dL/g, base stability 92.8%, and particle size distribution 250-500 μ 15.1, 177-250 μ 45.6, 125-177 μ 29.7, 88-125 μ 8.5, and <88 μ 1.1%.
IC C08G002-18
CC 35-4 (Chemistry of Synthetic High Polymers)
ST polyoxymethylene particle size; copper acetylacetonate catalyst polymn; boron trifluoride catalyst polymn; catalyst polymn polyoxymethylene; trioxocane formaldehyde copolymer
IT Polymerization catalysts
(boron trifluoride-copper chelates, for formaldehyde with cyclic ethers)
IT Particle size
(control of, in polyoxymethylene manufacture)
IT Polyoxymethylenes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, with large particle size)

IT 109-63-7 13395-16-9
RL: CAT (Catalyst use); USES (Uses)
(catalyst, for polymerization of formaldehyde with cyclic ethers)
IT 13395-16-9
RL: CAT (Catalyst use); USES (Uses)
(catalyst, for polymerization of formaldehyde with cyclic ethers)
RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)

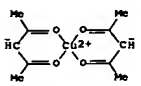


L162 ANSWER 12 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:545450 HCAPLUS Full-text
DOCUMENT NUMBER: 97:145450
TITLE: Manufacture of oxymethylene copolymer
PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57083516	A	19820525	JP 1980-157692	19801111 <--
JP 58051013	B	19831114		
PRIORITY APPLN. INFO.:			JP 1980-157692	19801111 <--

ED Entered STN: 12 May 1984
AB The title manufacture involves (1) the polymerization of HCHO in the presence of a metal chelate in an inert organic solvent, (2) copolymn. of the homopolymer with a cyclic acetal in the presence of a Lewis acid, (3) termination of the copolymn. with an EDTA alkali metal salt, (4) separation of the copolymn. slurry into the copolymer and the inert medium, and (5) distillation of the inert medium and recycle to step 1. Thus, to the 1st reactor at 50° were fed 168.3 mL/min recycled heptane, 29.7 mL/min fresh heptane, 1 mL/min 1 mmol/L solution of bis(acetylacetonato)copper [13395-16-9] in heptane, and 10 g/min HCHO. The homopolymer (intrinsic viscosity 5.5 dL/g) was fed into 2nd reactor at 70° together with 1 mL/min 1,3,6-trioxocane (I) and 0.2 mmol/min BF3. The copolymn. mixture was fed into a mixer together with 0.2 mmol/min tetra-Na EDTA [64-02-8], and the mixture was then fed into a centrifuge to give 31.1 g/min cake (containing 10.6 g/min copolymer [28157-39-3]) and 116.1 g/min filtrate. The filtrate was distilled to give a distillate for recycle and 1.0 g/min bottom containing oligomers and some copolymer. The cake was slurried in 80 g/min 90:10 MeOH-water to give a slurry of the copolymer having intrinsic viscosity 1.55 dL/g, base stability

95.5%, and I content 1.6 mol%. These values were identical with those for sample taken between the 2nd reactor and the mixer. A control prepared without tetra-Na EDTA had intrinsic viscosity 0.8 dL/g decreasing to 0.6 dL/g on storage.
IC C08G004-00; C08G002-38
CC 35-4 (Chemistry of Synthetic High Polymers)
ST formaldehyde trioxocane copolymer manuf
IT Polymerization catalysts
(bis(acetylacetonato)copper and boron trifluoride, for formaldehyde and trioxocane)
IT Polyoxymethylenes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, continuous 2-step process for)
IT Polymerization inhibitors
(tetrasodium EDTA, in formaldehyde-trioxocane copolymer manufacture)
IT Polymerization
(continuous, 2-step, of formaldehyde and trioxocane)
IT 13395-16-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
IT 7637-07-2, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde and trioxocane)
IT 64-02-8
RL: USES (Uses)
(polymerization inhibitors, in manufacture of formaldehyde-trioxocane copolymer)
IT 13395-16-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



L162 ANSWER 13 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:616956 HCAPLUS Full-text
DOCUMENT NUMBER: 97:216956
TITLE: Stabilization of polyoxymethylene
PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57055916	A	19820403	JP 1980-129145	19800919 <--
JP 62013975	B	19870330		
PRIORITY APPLN. INFO.:			JP 1980-129145	19800919 <--

ED Entered STN: 12 May 1984

AB Polyoxymethylene having number-average mol. weight ≥10,000 is treated with alkylene oxides or cyclic formals in the presence of complexes of Lewis acids with cyclic ethers to stabilize the polymer toward heat. Thus, 50 g hydroxy-terminated poly(oxymethylene) having number-average mol. t. 61,500 and reduced viscosity (60°, 0.5g/dL 1:1 p-ClC6H4OH-CH2Cl4) 3.08, 500 mL PhMe, 4 mg methylal, and 3.8 g oxirane [75-21-8] were placed in a flask and warmed 65 min at 60° in the presence of BF3-oxirane complex [82991-20-6] (prepared from 85 mg BF3.Et2O and oxirane) to give 49 g polymer having mol. weight 34,200, reduced viscosity 1.76, and weight retention after heating 50 min in vacuo at 222° 98.8%.

IC C08G002-34

CC 35-8 (Chemistry of Synthetic High Polymers)

ST polyoxymethylene stabilization; ethylene oxide stabilization polyoxymethylene; fluoroborane oxirane complex catalyst; boron ether complex catalyst

IT Catalysts and Catalysis
(Lewis acid complexes with cyclic ethers, for stabilization of polyoxymethylenes with alkylene oxides or cyclic formals)

IT Epoxides
RL: USES (Uses)
(stabilization by, of polyoxymethylene)

IT Polyoxymethylenes, preparation
RL: PREP (Preparation)
(stabilization of, by reaction with alkylene oxides or cyclic formals, catalysts for)

IT Ethers, compounds
RL: USES (Uses)
(cyclic, complexes with Lewis acids, catalysts, for stabilization of polyoxymethylenes with alkylene oxides or cyclic formals)

IT Acetals
RL: USES (Uses)
(formals, cyclic, stabilization by, of polyoxymethylene)

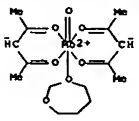
IT 306-70-7 462-34-0 15283-71-3 27179-87-9 82985-10-2 82985-11-3 82985-12-4 82991-21-7 82991-22-8 82991-23-9 82991-24-0 83642-96-0
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for stabilization of polyoxymethylene with cyclic ethers or formals)

IT 75-21-8, uses and miscellaneous 75-56-9, uses and miscellaneous 96-09-3 286-20-4 294-59-7 505-65-7 558-30-5 592-90-5 646-06-0 6572-90-3
RL: USES (Uses)
(stabilization by, of poly(oxymethylene))

IT 82991-22-8
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for stabilization of polyoxymethylene with cyclic ethers or formals)

RN 82991-22-8 HCAPLUS

CN Molybdenum, (1,3-dioxepane-O1)oxobis(2,4-pentanedionato-O,O')- (9CI) (CA INDEX NAME)



L162 ANSWER 14 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:498600 HCAPLUS Full-text
DOCUMENT NUMBER: 95:98600
TITLE: Polymerizing formaldehyde
INVENTOR(S): Kono, Hisashi; Terai, Kenji; Hisadomi, Masaki; Uemura, Katumi; Ohta, Sumio; Yamamoto, Yoshiichi
PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 28499	A1	19810513	EP 1980-303839	19801029 <--
EP 28499	B1	19840201		
R: BE, DE, FR, GB, IT				
JP 56067323	A	19810606	JP 1979-142828	19791106 <--
JP 63021687	B	19880509		
JP 57008216	A	19820116	JP 1980-82866	19800620 <--
JP 59017128	B	19840419		
US 4352923	A	19821005	US 1980-204353	19801105 <--
PRIORITY APPLN. INFO.:			JP 1979-142828 A	19791106 <--
			JP 1980-82866 A	19800620 <--

ED Entered STN: 12 May 1984

AB Undesirable deposition of polyoxymethyleneS (I) of the walls of reactors in the slurry polymerization of HCHO is minimized without any adverse effect on polymerization activity by using catalysts consisting of metal chelates adsorbed on I. Thus, bis(acetylacetonato)copper (II) [13395-16-9] was contacted with I in n-heptane (III) in the presence of HCHO so the amount of II adsorbed on I was 7.6 + 10-6 mol/g I and the slurry was diluted with III to give a catalyst slurry containing 5 + 10-6 mol II/L III. HCHO (g) at 1 g/min and above catalyst slurry at 50 mL/min were fed to a polymerization reactor and the HCHO was polymerized for 24 h at 40° while continuously withdrawing the I product in the form of a slurry. A 100% yield of I with intrinsic viscosity 5.4 dL/g was obtained. The amount of I deposited on the reactor walls was 1.3g. The catalyst could also contain an alkylsalicylic acid polyvalent metal salt or dialkyl sulfosuccinate polyvalent metal salts and a polymeric electrolyte such as an alkyl methacrylate-2-methyl-5- vinylpyridine copolymer.

IC C08G002-08; C08G002-06

CC 35-3 (Synthetic High Polymers)

ST polyoxymethylene manuf catalyst; formaldehyde slurry polymn catalyst; chelate polymn catalyst

formaldehyde; copper chelate polymn catalyst; salicylate chelate polymn formaldehyde; sulfosuccinate polymn formaldehyde

IT Polyoxymethylenes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, minimization of reactor fouling in, catalyst for)

IT Polymerization catalysts
(metal chelates adsorbed on polyoxymethylenes, for formaldehyde)

IT Scale (coating)
(prevention of, in reactors for slurry polymerization of formaldehyde)

IT Polymerization
(slurry, of formaldehyde, minimization of reactor fouling in)

IT 13395-16-9 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, adsorbed on polyoxymethylenes, for polymerization of formaldehyde with minimal reactor fouling)

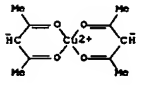
IT 69-72-7D, alkyl derivs., polyvalent metal chelates 128-49-4
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for slurry polymerization of formaldehyde with minimal reactor fouling)

IT 79-41-4D, alkyl esters, polymers with methylvinylpyridine 140-76-1D, polymers with alkyl methacrylates
RL: USES (Uses)
(in slurry polymerization of formaldehyde with reduced reactor fouling)

IT 13395-16-9 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, adsorbed on polyoxymethylenes, for polymerization of formaldehyde with minimal reactor fouling)

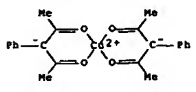
RN 13395-16-9 HCAPLUS

CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 36799-66-3 HCAPLUS

CN Copper, bis(3-phenyl-2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



L162 ANSWER 15 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:462971 HCAPLUS Full-text
DOCUMENT NUMBER: 95:62971
TITLE: Polymerizing formaldehyde
INVENTOR(S): Ishii, Takami; Takikawa, Naohisa; Tokunaga, Kiyoaki; Ogawa, Nobuhiro
PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 26047	A1	19810401	EP 1980-302888	19800820 <--
EP 26047	B1	19840404		
R: BE, DE, FR, GB, IT, NL				
JP 56030421	A	19810327	JP 1979-106639	19790823 <--
JP 61053365	B	19861117		
JP 57021414	A	19820204	JP 1980-95693	19800715 <--
JP 58048562	B	19831029		
US 4332930	A	19820601	US 1980-180306	19800822 <--
PRIORITY APPLN. INFO.:			JP 1979-106639 A	19790823 <--
			JP 1980-95693 A	19800715 <--

ED Entered STN: 12 May 1984

AB Reactor fouling by polyoxymethylene (I) [9002-81-7] is minimized in the slurry polymerization of HCHO by polymerizing in the presence of a catalyst and ≥1 polyvalent metal salt of alkylsalicylic acids and sulfosuccinic acid dialkyl esters. Thus, a heptane solution containing 5 + 10-6 mol/L bis(acetylacetonato)copper [13395-16-9] and 3 mg/L solution consisting of Cr(III) C14-18 alkylsalicylate 20, calcium bis(2-ethylhexyl sulfosuccinate) [128-49-4] 10, of 2-methyl-5-vinylpyridine-C17-alkyl methacrylate copolymer 45, and xylene 25% was pumped at 20 mL/min into a polymerization reactor along with 1 g/min HCHO(g). Polymerization was conducted at 50° for 24 h while continuously withdrawing a slurry of I so the liquid level was kept constant The yield of I was .apprx.100% based on the HCHO; the intrinsic viscosity of the polymer was 5.5 dL/g. The weight of I deposited on the inner walls of the reactor and stirrer was 0.32 g.

IC C08G002-08; C08G002-06

CC 35-3 (Synthetic High Polymers)

ST formaldehyde polymn prevention reactor fouling; alkylsalicylate metal salt polymn formaldehyde; alkyl sulfosuccinate metal salt; metal salt carboxylate formaldehyde polymn; salicylate metal salt polymn formaldehyde

IT Polymerization
(of formaldehyde, reduction of reactor fouling in, by polyvalent metal salts of alkylsalicylic acids and alkylsulfosuccinates)

IT 102-82-9 557-20-0 13395-16-9 21679-46-9 36799-66-3 78448-18-7
RL: CAT (Catalyst use); USES (Uses)
(catalysts, formaldehyde polymerization in presence of polyvalent metal salts of alkylsalicylic acids and dialkylsulfosuccinates and, for reactor fouling prevention)

IT 69-72-7D, alkyl derivs., polyvalent metal salts 128-49-4 50764-87-9

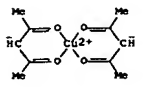
RL: USES (Uses)
(formaldehyde polymerization in presence of, for reactor fouling prevention)

IT 79-41-4D, alkyl esters, polymers with methylvinylpyridine 140-76-1D, polymers with alkyl methacrylates 9002-92-0 9004-98-2 9005-00-9 9016-45-9 24938-91-8
RL: USES (Uses)
(formaldehyde polymerization in presence of, reactor fouling inhibition in, by polyvalent metal salts of alkyl salicylic acids and dialkyl sulfosuccinates)

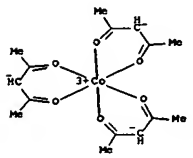
IT 9002-81-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, reactor fouling inhibition in, by metal salts of alkylsalicylic acids and dialkyl sulfosuccinates)

IT 13395-16-9 21679-46-9 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, formaldehyde polymerization in presence of polyvalent metal salts of alkylsalicylic acids and dialkylsulfosuccinates and, for reactor fouling prevention)

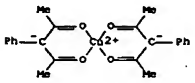
RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

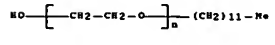


RN 36799-66-3 HCAPLUS
CN Copper, bis(3-phenyl-2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)

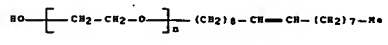


IT 9002-92-0 9004-98-2 9005-00-9 9016-45-9 24938-91-8
RL: USES (Uses)
(formaldehyde polymerization in presence of, reactor fouling inhibition in, by polyvalent metal salts of alkyl salicylic acids and dialkyl sulfosuccinates)

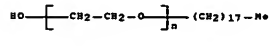
RN 9002-92-0 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-dodecyl-ω-hydroxy- (9CI) (CA INDEX NAME)



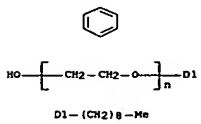
RN 9004-98-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(9Z)-9-octadecenyl-ω-hydroxy- (9CI) (CA INDEX NAME)



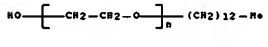
RN 9005-00-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-octadecyl-ω-hydroxy- (9CI) (CA INDEX NAME)



RN 9016-45-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(nonylphenyl)-ω-hydroxy- (9CI) (CA INDEX NAME)

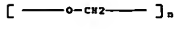


RN 24938-91-8 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-tridecyl-ω-hydroxy- (9CI) (CA INDEX NAME)



IT 9002-81-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, reactor fouling inhibition in, by metal salts of alkylsalicylic acids and dialkyl sulfosuccinates)

RN 9002-81-7 HCAPLUS
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



L162 ANSWER 16 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:533436 HCAPLUS Full-text
DOCUMENT NUMBER: 95:133436
TITLE: Polymerization of formaldehyde and the physical properties of the polymerization products. I
AUTHOR(S): Ishida, Shinichi
CORPORATE SOURCE: Asahi Chem. Ind. Co., Tokyo, Japan
SOURCE: Journal of Applied Polymer Science (1981), 26(8), 2743-50
CODEN: JAPNAB; ISSN: 0021-8995
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Polymerization of HCHO carried out by a solution method and a gas supply method using various initiators at various temps. and characteristics of the polyoxymethyleneS obtained are discussed. In both modes of polymerization, polyoxymethyleneS with adequate number-average mol. weight and small polydispersity were obtained. The Izod impact strength of the polymers increased with increasing number average mol. weight at polydispersities in

the range 2.3-3.5, and Dart imact strength increased with decreasing polydispersity.

CC 35-4 (Synthetic High Polymers)
ST formaldehyde polymn catalyst; polyoxymethylene property; toughness mol wt polyoxymethylene; polydispersity toughness polyoxymethylene

IT Polymerization catalysts
(for solution and gas-phase polymerization of formaldehyde)

IT Polyoxymethylenes, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, catalysts for)

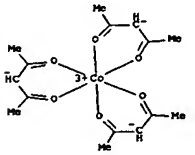
IT Polymerization
(gas-phase, of formaldehyde)

IT Polymerization
(solution, of formaldehyde)

IT 77-58-7 121-44-8, uses and miscellaneous 7646-78-8, uses and miscellaneous 10534-59-5 13308-45-7 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)

IT 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)

RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



L162 ANSWER 17 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1975:411214 HCAPLUS Full-text
DOCUMENT NUMBER: 83:11214
TITLE: Etherification of polyacetals
PATENT ASSIGNEE(S): Societa Italiana Resine S.p.A., Italy
SOURCE: Fr. Demande, 13 pp.
CODEN: FROXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2233344	A1	19750110	FR 1974-20578	19740613 <--

FR 2233344	B1	19760625			
IT 998149	B	19760120	IT 1973-25409	19730615	<--
GB 1447915	A	19760902	GB 1974-24765	19740604	<--
CA 1015089	A1	19770802	CA 1974-201895	19740607	<--
ES 427245	A1	19760716	ES 1974-427245	19740614	<--

PRIORITY APPLN. INFO.: IT 1973-25409 A 19730615 <--

ED Entered STN: 12 May 1984

AB The decomposition temperature of polyoxymethylenes was increased from 240-60 to 280-320° and the thermal stability at lower temps. was improved by rapid etherification of terminal OH groups with a trialkyl orthoformate at 120-80° in the presence of a cationic etherification catalyst in a reaction medium consisting of a mixture of solvent and nonsolvent for the polymer. No transacetalization occurred using this system. Thus, 500 g polyoxymethylene glycol [9015-98-9] was dispersed in a medium consisting of 700 g dodecylbenzene nonsolvent, 700 g ε-caprolactone solvent, containing 50 g triethyl orthoformate [122-51-0] and 6 g bis(2-ethylhexyl)phosphoric acid [298-07-7] catalyst. The mixture was heated 3 min at 155° and the suspension formed was filtered to give 96.8% of a polymer which had 0.04% weight loss after 30 min at 220° and 98.7% of which was stable in alkaline medium.

IC C08G

CC 35-6 (Synthetic High Polymers)

ST polyoxymethylene etherification heat stabilization; alkyl orthoformate etherification polyoxymethylene

IT Polyoxymethylenes, properties
RL: PRP (Properties)
(alkyl ethers, heat-resistant)

IT Etherification catalysts
(cationic, for polyoxymethylenes)

IT Etherification
(of polyoxymethylenes, for improved heat stability)

IT Heat-resistant materials
(polyoxymethylenes, etherified)

IT 298-07-7 17524-05-9 37220-26-1
RL: CAT (Catalyst use); USES (Uses)
(catalyst, for etherification of polyoxymethylenes)

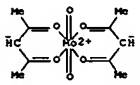
IT 122-51-0 149-73-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(etherification by, of polyoxymethylenes, for improved heat resistance)

IT 9015-98-9DP, Poly(oxymethylene), α-hydro-ω-hydroxy-, alkyl ethers
RL: PREP (Preparation)
(heat-resistant)

IT 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalyst, for etherification of polyoxymethylenes)

RN 17524-05-9 HCAPLUS

CN Molybdenum, dioxobis(2,4-pentanedionato-κO,κO')-, (OC-6-21)-(9CI) (CA INDEX NAME)



L162 ANSWER 10 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1976:45353 HCAPLUS Full-text
DOCUMENT NUMBER: 84:45353
TITLE: Thermoplastic molding compositions decomposable by light
INVENTOR(S): Lueders, Walter; Fischer, Edgar
PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 21 pp.
CODEN: GWXXEX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2418834	A1	19751030	DE 1974-2418834	19740419 <--
NL 7504409	A	19751021	NL 1975-4409	19750414 <--
DK 7501679	A	19751020	DK 1975-1679	19750418 <--
FR 2268046	A1	19751114	FR 1975-12142	19750418 <--
JP 50141641	A	19751114	JP 1975-46595	19750418 <--
BE 828180	A1	19751021	BE 1975-155609	19750421 <--

PRIORITY APPLN. INFO.: DE 1974-2418834 A 19740419 <--

ED Entered STN: 12 May 1984

AB Plastics were mixed with 0.4-1.2% photodegrdn. catalysts consisting of anthrone (I) [90-44-8] (or a I derivative) and a metal carboxylate or chelate. Thus, 100 parts polypropylene [9003-07-0] (stabilized with 0.1% phenolic antioxidant and 0.25% thiodipropionate) containing 0.5 part I and 0.5 part Co tris(acetylacetonate) (II) [21679-46-9] in a Xenotest apparatus had embrittlement time 53 hr compared to 165, 130, and 70 hr for polymer containing no photodegrdn. catalyst, containing only I, and containing only II, resp.

IC C08K

CC 36-6 (Plastics Manufacture and Processing)

IT Polyoxymethylenes, reactions
RL: PRP (Properties)
(degradation of, by light, catalyst for)

IT 5931-89-5 13395-16-9 13476-99-8 13963-57-0
14024-17-0 14024-18-1 14024-63-6
17501-44-9 21679-31-2 22487-78-1
RL: CAT (Catalyst use); USES (Uses)
(catalysts, containing anthrone derivs, for degradation of plastics, by light)

IT 516-03-0 555-36-2 557-05-1 1072-35-1 1592-23-0 2452-01-9
3130-28-7 7428-48-0 7440-02-0D, Nickel, naphthenates 7459-41-8
13586-84-0 14284-89-0 14534-87-3 14536-00-6 14796-93-1
15890-51-4 17677-41-7 21248-70-4 21679-46-9 23250-73-9
28633-45-6 34715-81-6 57898-46-1 57898-47-2 57898-48-3
57898-49-4 57898-50-7 57898-51-8 57898-52-9 57898-53-0
57898-54-1 57898-55-2 57898-56-3 57898-57-4 57898-58-5
57898-59-6 57898-60-9 57898-61-0 57916-44-6 57916-45-7
57951-33-4 57951-34-5 57966-63-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, containing anthrone derivs., for degradation of plastics, by light)

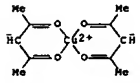
IT 9002-88-4 9003-07-0 9003-53-6 24969-25-3
RL: PRP (Properties)

(degradation of, by light, catalyst for)

IT 13395-16-9 13476-99-8 14024-17-0
14024-18-1 14024-63-6 17501-44-9
21679-31-2
RL: CAT (Catalyst use); USES (Uses)
(catalysts, containing anthrone derivs, for degradation of plastics, by light)

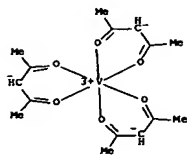
RN 13395-16-9 HCAPLUS

CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



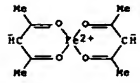
RN 13476-99-8 HCAPLUS

CN Vanadium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 14024-17-0 HCAPLUS

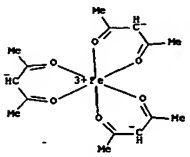
CN Iron, bis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



RN 14024-18-1 HCAPLUS

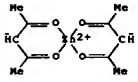
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA

INDEX NAME)



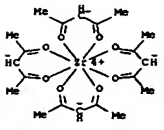
RN 14024-63-6 HCAPLUS

CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)



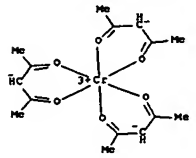
RN 17501-44-9 HCAPLUS

CN Zirconium, tetrakis(2,4-pentanedionato-κO,κO')-, (SA-8-11''11''1'1'''1'1''')- (9CI) (CA INDEX NAME)

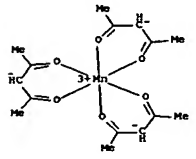


RN 21679-31-2 HCAPLUS

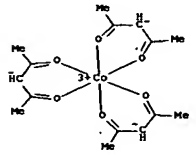
CN Chromium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



IT 14284-89-0 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, containing anthrone derivs., for degradation of plastics, by light)
RN 14284-89-0 HCAPLUS
CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



IT 24969-25-3
RL: PRP (Properties)
(degradation of, by light, catalyst for)
RN 24969-25-3 HCAPLUS
CN 1,3,5-Trioxane, polymer with oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 110-88-3
CMF C3 H6 O3

CM 2

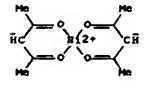
CRN 75-21-8
CMF C2 H4 O

L162 ANSWER 19 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:450334 HCAPLUS Full-text
DOCUMENT NUMBER: 81:50334
TITLE: Formaldehyde copolymer
INVENTOR(S): Ishii, Takami; Takikawa, Naohisa; Imaizawa, Yoshihiro
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: U.S., 7 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3803094	A	19740409	US 1972-270930	19720712 <--
PRIORITY APPLN. INFO.:			US 1972-270930	A 19720712 <--

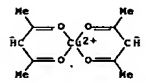
ED Entered STN: 12 May 1984
AB A high mol. weight formaldehyde-cyclic ether copolymer with improved thermal stability was obtained by polymerization in the presence of a Lewis acid and metal chelate catalyst mixture Thus, 125 g 1,3-dioxolane [646-06-0] were charged to a reactor with 2.5 l. PhMe and cooled to -78.deg.. Gaseous HCHO [50-00-0] (250 g) was introduced and the temperature was raised to 0.deg.. A reaction mixture of 0.25 mmole tris(acetylacetone)cobalt [21679-46-9] and 2.5

mmole BF3.Et2O [109-63-7] in 47 ml PhMe was introduced and the temperature was increased to 60.deg. and maintained 100 min to give 245 g of a copolymer m. 165.deg. with base stability 98%, intrinsic viscosity 1.51, and thermal degradation constant 0.01%. A copolymer prepared by an insertion reaction in a polyformaldehyde using only a Lewis acid catalyst had m.p. 163.deg., base stability 75%, and intrinsic viscosity 1.30.
IC C08G
INCL 260067000FP
CC 35-4 (Synthetic High Polymers)
ST formaldehyde cyclic ether copolymer; copolymn catalyst formaldehyde; Lewis acid formaldehyde copolymn; metal chelate formaldehyde copolymn
IT Polymerization catalysts
(Lewis acid-metal chelate, for formaldehyde with cyclic ethers)
IT 94-93-9D, Phenol, 2,2'-[1,2-ethanediylbis(nitrilomethylidyne)]bis-, cobalt complexes 3264-82-2 10380-28-6 13395-16-9 13478-93-8 13963-57-0 14024-18-1 14024-56-7 14781-49-8 17499-48-8 21679-46-9 27821-98-3 36799-66-3 51989-93-6 52063-95-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, Lewis acid and, for polymerization of formaldehyde with cyclic ethers)
IT 109-63-7 368-39-8 372-44-1 462-34-0 7550-45-0, uses and miscellaneous 7637-07-2, uses and miscellaneous 7646-78-8
RL: CAT (Catalyst use); USES (Uses)
(catalysts, metal chelates and, for polymerization of formaldehyde with cyclic ethers)
IT 50-00-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with cyclic ethers, Lewis acid-metal chelate catalysts for)
IT 75-56-9, reactions 646-06-0 1779-19-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with formaldehyde, Lewis acid-metal chelate catalysts for)
IT 3264-82-2 13395-16-9 14024-18-1 14781-49-8 21679-46-9 36799-66-3 51989-93-6 52063-95-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, Lewis acid and, for polymerization of formaldehyde with cyclic ethers)
RN 3264-82-2 HCAPLUS
CN Nickel, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)

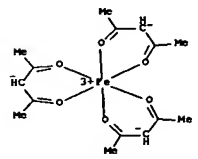


RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA

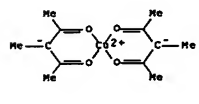
INDEX NAME)



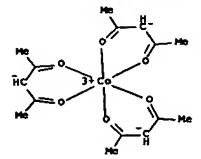
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



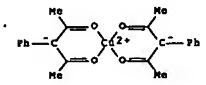
RN 14781-49-8 HCAPLUS
CN Copper, bis(3-methyl-2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



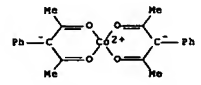
RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



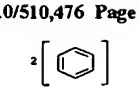
RN 36799-66-3 HCAPLUS
CN Copper, bis(3-phenyl-2,4-pentanedionato-κO,κO')-, (SP-4-1)-
(9CI) (CA INDEX NAME)



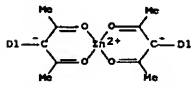
RN 51989-93-6 HCAPLUS
CN Cobalt, bis(3-phenyl-2,4-pentanedionato-O,O')-, (T-4)- (9CI) (CA INDEX
NAME)



RN 52063-95-3 HCAPLUS
CN Zinc, bis[3-(methoxyphenyl)-2,4-pentanedionato-κO,κO']-,
(T-4)- (9CI) (CA INDEX NAME)



2 (D1-O-Me)



IT 50-00-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with cyclic ethers, Lewis acid-metal chelate
catalysts for)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

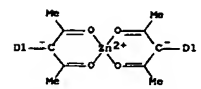
L162 ANSWER 20 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1975:17497 HCAPLUS Full-text
DOCUMENT NUMBER: 82:17497
TITLE: Copolymers of formaldehyde
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: Fr. Demande, 24 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2193045	A1	19740215	FR 1972-26046	19720719 <--
FR 2193045	B1	19741227		

PRIORITY APPLN. INFO.: FR 1972-26046 A 19720719 <--
ED Entered STN: 12 May 1984
AB Catalyst mixts. containing a metal chelate and a Lewis acid for the copolymn. of HCHO with cyclic ether gave copolymers with medium mol. weight values and improved heat stability. HCHO gas (250 g), obtained by the thermal decomposition of a polyoxymethylene, was introduced to 2.5 l. PhMe containing 125 g dioxolane at -78°. The solution temperature was increased to 0° and a mixture of 0.25 mmole tris(acetylacetonato)cobalt [21679-46-9] and 2.5 mmole BF3.OEt2 [109-63-7] in 47 ml PhMe was added. After copolymn. at 60° 245 g of a formaldehyde-1,3-dioxolane copolymer [25765-51-9] (m. 165°) with a basic

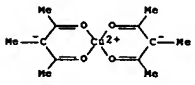
stability 98%, intrinsic viscosity 1.51, and thermal degradation rate constant 0.01%/min was obtained.
IC C08G; B01J
CC 35-4 (Synthetic High Polymers)
ST formaldehyde copolymn catalyst; Lewis acid catalyst polymn; metal chelate catalyst polymn; cobalt acetylacetonate catalyst polymn; boron fluoride etherate catalyst
IT Polymerization catalysts
(Lewis acid-metal chelate, for formaldehyde)
IT 109-63-7 368-39-8 372-44-1 462-34-0 591-00-4 7646-78-8
RL: CAT (Catalyst use); USES (Uses)
(catalyst, metal chelate and, for copolymn. of formaldehyde)
IT 52063-95-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, Lewis acid and, for copolymn. of formaldehyde)
IT 10380-28-6 13478-93-8 13963-57-0 14024-56-7 36407-49-5 36799-66-3 51989-93-6
RL: CAT (Catalyst use); USES (Uses)
(catalysts, boron trifluoride etherate and, for copolymerization of formaldehyde)
IT 3264-82-2 13395-16-9 14024-18-1 14167-18-1 17499-48-8 21679-46-9 27821-98-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, boron trifluoride etherate and, for copolymn. of formaldehyde)
IT 52063-95-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, Lewis acid and, for copolymn. of formaldehyde)
RN 52063-95-3 HCAPLUS
CN Zinc, bis[3-(methoxyphenyl)-2,4-pentanedionato-κO,κO']-,
(T-4)- (9CI) (CA INDEX NAME)

2 (D1-O-Me)

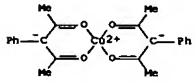


IT 36407-49-5 36799-66-3 51989-93-6
RL: CAT (Catalyst use); USES (Uses)
(catalysts, boron trifluoride etherate and, for copolymerization of formaldehyde)
RN 36407-49-5 HCAPLUS

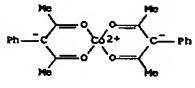
CN Copper, bis(3-methyl-2,4-pentanedionato-O,O')-, (SP-4-1)- (9CI) (CA INDEX NAME)



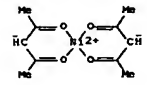
RN 36799-66-3 HCAPLUS
CN Copper, bis(3-phenyl-2,4-pentanedionato-κO,κO')-, (SP-4-1)-
(9CI) (CA INDEX NAME)



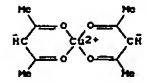
RN 51989-93-6 HCAPLUS
CN Cobalt, bis(3-phenyl-2,4-pentanedionato-O,O')-, (T-4)- (9CI) (CA INDEX NAME)



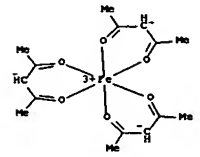
IT 3264-82-2 13395-16-9 14024-18-1 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, boron trifluoride etherate and, for copolymn. of formaldehyde)
RN 3264-82-2 HCAPLUS
CN Nickel, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



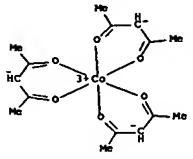
RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

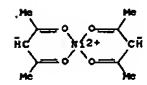


L162 ANSWER 21 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:438130 HCAPLUS Full-text
DOCUMENT NUMBER: 81:38130
TITLE: Formaldehyde copolymers
INVENTOR(S): Ushii, Takami; Takikawa, Naoshi; Inuizawa, Yoshihiro
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: Ger. Offen., 29 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

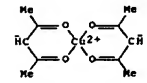
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2231704	A1	19740131	DE 1972-2231704	19720628 <--
DE 2231704	B2	19740516		
DE 2231704	C3	19750306		

PRIORITY APPLN. INFO.: DE 1972-2231704 A 19720628 <--
ED Entered STN: 12 May 1984
AB Polyoxymethylenes having improved thermal stability are prepared by polymerization of HCHO with cyclic ethers in the presence of metal chelate-Lewis acid catalysts. Thus, stirring 250 g HCHO, 125 g 1,3-dioxolane, 0.25 mmole tris(acetylacetonato)cobalt (I) [21679-46-9], 2.5 mmole boron trifluoride etherate [109-63-7], and 2.5 l. PhMe 100 min at 60.deg. gives 245 g 1,3-dioxolane- formaldehyde polymer [25765-51-9], intrinsic viscosity (p-ClC6H4OH, 60.deg.) 1.51, decomposition in 2 hr at 160.deg. 2%, degradation rate at 222.deg. 0.01%/min, compared with 0.43, 25, and 0.28, resp., in the absence of I.
IC C08G
CC 35-4 (Synthetic High Polymers)
ST polyoxymethylene polymn catalyst; acetylacetone cobalt complex; cobalt complex catalyst; boron trifluoride catalyst; heat resistance polyoxymethylene
IT Polyoxymethylenes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of heat-resistant, catalysts for)
IT Polymerization catalysts
(metal chelates-Lewis acids, for polyoxymethylene manufacture)
IT 3264-82-2 10380-28-6 13395-16-9 14024-18-1 14592-59-7 21679-46-9 27821-98-3 31381-69-8 51989-93-6 52063-95-3
RL: CAT (Catalyst use); USES (Uses)

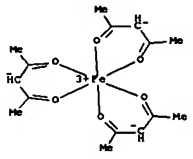
(catalyst, containing Lewis acid, for polyoxymethylene manufacture)
IT 13963-57-0 14024-56-7 14781-49-8 17499-48-8 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, containing Lewis acids, for polyoxymethylene manufacture)
IT 108-24-7
RL: CAT (Catalyst use); USES (Uses)
(catalysts, containing metal chelates and Lewis acid, for polyoxymethylene manufacture)
IT 109-63-7 368-39-8 372-44-1 462-34-0 7550-45-0, uses and miscellaneous 7637-07-2, uses and miscellaneous 7646-78-8
RL: CAT (Catalyst use); USES (Uses)
(catalysts, containing metal chelates, for polyoxymethylene manufacture)
IT 3264-82-2 13395-16-9 14024-18-1 21679-46-9 31381-69-8 51989-93-6 52063-95-3
RL: CAT (Catalyst use); USES (Uses)
(catalyst, containing Lewis acid, for polyoxymethylene manufacture)
RN 3264-82-2 HCAPLUS
CN Nickel, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



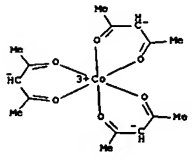
RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



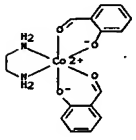
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



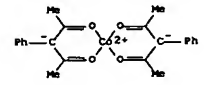
RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 31381-69-8 HCAPLUS
CN Cobalt, [1,2-ethanediamine-N,N']bis(2-hydroxybenzaldehyde-O,O')- (9CI) (CA INDEX NAME)

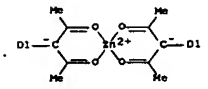


RN 51989-93-6 HCAPLUS
CN Cobalt, bis(3-phenyl-2,4-pentanedionato-O,O')-, (T-4)- (9CI) (CA INDEX NAME)

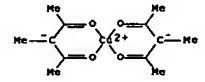


RN 52063-95-3 HCAPLUS
CN Zinc, bis[3-(methoxyphenyl)-2,4-pentanedionato-κO,κO']-, (T-4)- (9CI) (CA INDEX NAME)

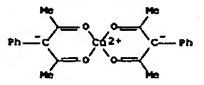
2 (D1—O—Me)



IT 14781-49-8 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, containing Lewis acids, for polyoxymethylene manufacture)
RN 14781-49-8 HCAPLUS
CN Copper, bis(3-methyl-2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



RN 36799-66-3 HCAPLUS
CN Copper, bis(3-phenyl-2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)

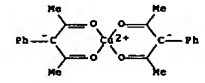


L162 ANSWER 22 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:60407 HCAPLUS Full-text
DOCUMENT NUMBER: 80:60407
TITLE: Polymerising formaldehyde
INVENTOR(S): Oshii, Takami; Inuizawa, Yoshiro; Kumahara, Hiromi
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 48047592	A	19730706	JP 1971-82124	19711019 <--
JP 49035839	B	19740926		
US 3804808	A	19740416	US 1972-256742	19720525 <--
GB 1336828	A	19731114	GB 1972-25131	19720530 <--
DE 2226620	A1	19730503	DE 1972-2226620	19720531 <--
DE 2226620	B2	19740207		
DE 2226620	C3	19740905		
NL 7210220	A	19730425	NL 1972-10220	19720725 <--
IT 964068	B	19740121	IT 1972-28285	19720818 <--
FR 2156718	A1	19730601	FR 1972-36172	19721012 <--
PRIORITY APPLN. INFO.:			JP 1971-82124 A	19711019 <--

ED Entered STN: 12 May 1984
AB Practically anhydrous HCHO was polymerized in inert solvents containing 1 .tim. 10-9-1 .tim. 10-7 mole (to 1 mole HCHO) bis(3-phenylacetylacetone)copper (I) [15277-28-8]. Separation of the catalyst after the polymerization was unnecessary in this method. Thus, 100 g HCHO gas obtained by heat decomposition of .alpha.-poly(oxymethylene) was blown into 1300 g PhMe at -78.deg., polymerized for 60 min at -18.deg. in contact with 2 ml PhMe solution containing 1 .tim. 10-7 mole I, and the resulting slurry mixed (700 g) 10 min at 110.deg. with 200 g Ac2O, 0.1 g BF3 and 5 ml Bu3N to give 46 g poly(formaldehyde) [9002-81-7] with 0.08 %/min K222 value.
INCL 26(5)B1
CC 35-4 (Synthetic High Polymers)
ST polyformaldehyde; copper phenylacetylacetone complex catalyst; phenylacetylacetone copper complex; formaldehyde polymn catalyst; polyoxymethylene
IT Polymerization catalysts
(bis(phenylacetylacetonato) copper, for formaldehyde)
IT Polyoxymethylenes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, catalysts for)
IT 36799-66-3
RL: CAT (Catalyst use); USES (Uses)

(catalysts, for polymerization of formaldehyde)
IT 50-00-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, catalysts for)
IT 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
RN 36799-66-3 HCAPLUS
CN Copper, bis(3-phenyl-2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



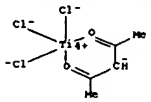
IT 50-00-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, catalysts for)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

L162 ANSWER 23 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1973:478230 HCAPLUS Full-text
DOCUMENT NUMBER: 79:78230
TITLE: Catalytic manufacture of 1,5,9-cyclododecatriene
INVENTOR(S): Morikawa, Hiroyuki; Tamura, Noriyoshi; Sato, Takahiro; Yamagishi, Kazuo; Nagai, Takeo
PATENT ASSIGNEE(S): Mitsubishi Petrochemical Co., Ltd.
SOURCE: Ger. Offen., 57 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

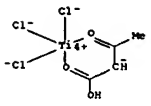
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2261002	A1	19730712	DE 1972-2261002	19721213 <--
JP 48067249	A	19730913	JP 1971-101064	19711215 <--
JP 50037185	B	19751201		
JP 48067250	A	19730913	JP 1971-101065	19711215 <--
JP 50037186	B	19751201		
JP 49035359	A	19740401	JP 1972-78138	19720804 <--
JP 55033690	B	19800902		
US 3843738	A	19741022	US 1972-314228	19721211 <--

FR 2163712	A1	19730727	FR 1972-44838	19721215 <--
GB 1418686	A	19751224	GB 1972-58002	19721215 <--
FR 2187741	A1	19740118	FR 1973-27869	19730730 <--
FR 2187742	A1	19740118	FR 1973-27870	19730730 <--
PRIORITY APPLN. INFO.:			JP 1971-101064 A	19711215 <--
			JP 1971-101065 A	19711215 <--
			JP 1972-78138 A	19720804 <--

ED Entered STN: 12 May 1984
AB The title compound (I) was prepared in .apprx.65-85% yield by cyclotrimerization of CH2:CHCH:CH2 (II) in the presence of a catalyst composed of a Ti compound; a BzH, BzCl or BzNH2 derivative or an aromatic 5-membered heterocycle or a cyclic formal or its S analog; a S compound SOnR2 (n = 1,2; R = hydrocarbyl or hydrocarbyloxy) and/or a P compound PRR1R2Xm (R,R1,R2 = the same or different alkyl or alkenyl groups or H, or RR1 = alkylene; X = O or halogen; m = 0 or 1); and an Al compound AlR2Cl (R = alkyl, alkoxy, aryl or aryloxy). Thus, cyclotrimerization of 60 g II in 100 ml MePh in the presence of 0.5, 0.5, 0.12, 0.13 and 3.0 mmoles, resp., of Bu0TiCl3, s-trioxane, Ph2SO, Ph3PO, and Et2AlCl gave 85.1% I.
IC C07C
CC 24-6 (Alicyclic Compounds)
Section cross-reference(s): 29, 67
IT Polyoxymethylenes, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for cyclotrimerization of butadiene)
IT Trimerization catalysts
(cyclo-, titanium compound-aluminum compound-benzoic acid derivative (or aromatic
5-membered heterocycle or cyclic formal)-organosulfur compound and/or organophosphorus compound as, for butadiene)
IT 67-68-5, uses and miscellaneous 67-71-0 78-40-0 88-14-2 89-98-5
90-02-8, uses and miscellaneous 96-10-6, uses and miscellaneous
98-01-1, uses and miscellaneous 98-02-2 99-61-6 100-07-2 100-10-7
100-52-7, uses and miscellaneous 104-88-1 108-62-3 109-87-5
109-99-9, uses and miscellaneous 110-88-3, uses and miscellaneous
115-86-6 120-14-9 121-33-5 122-01-0 122-03-2 123-63-7 123-91-1
126-33-0 126-73-8, uses and miscellaneous 291-21-4 293-30-1
503-30-0 527-69-5 527-85-5 534-22-5 539-47-9 597-50-2 616-42-2
617-89-0 623-27-8 626-85-7 634-97-9 646-06-0 791-28-6 814-49-3
874-42-0 945-51-7 1003-29-8 1072-83-9 1079-66-9 1193-10-8
1600-44-8 1779-25-5 2168-93-6 2373-00-4 2524-64-3 2892-89-9
3112-68-3 3466-00-0 3582-00-1 4200-76-4 4403-68-3 4544-86-9
5981-06-6 6975-60-6 7550-45-0, uses and miscellaneous 13780-39-7
15152-78-0 30860-71-0 34839-49-1 37942-93-1 42587-83-7
42724-49-2
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for cyclotrimerization of butadiene)
IT 15152-78-0 42724-49-2
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for cyclotrimerization of butadiene)
RN 15152-78-0 HCAPLUS
CN Titanium, trichloro(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



RN 42724-49-2 HCAPLUS
CN Titanium, trichloro(3-oxobutanoato-01',03)- (9CI) (CA INDEX NAME)

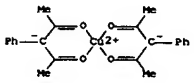


L162 ANSWER 24 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1973:492864 HCAPLUS Full-text
DOCUMENT NUMBER: 79:92864
TITLE: Polymerizing formaldehyde using a metal chelate catalyst
INVENTOR(S): Ishii, Takami; Inuizawa, Yoshihiro; Kumahara, Hiromi
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2226620	A1	19730503	DE 1972-2226620	19720531 <--
DE 2226620	B2	19740207		
DE 2226620	C3	19740905		
JP 48047592	A	19730706	JP 1971-82124	19711019 <--
JP 49035839	B	19740926		
PRIORITY APPLN. INFO.:			JP 1971-82124 A	19711019 <--

ED Entered STN: 12 May 1984
AB Anhydrous (<0.5 weight % H2O) formaldehyde [50-00-0] is polymerized in the presence of a 10-9 to 5 .tim. 10-7 M solution of bis(3-phenylacetylacetone)copper (I) [15277-28-8] in an inert organic solvent to give improved high-mol.-weight poly(oxymethylene) (II) [9002-81-7] in the suspension at a concentration of 30-150 g/l. solvent. Thus into 1.5 l. stirred PhMe at -78.deg. is blown HCHO [from thermal decomposition of α-poly(oxymethylene)] at -18.deg. until 100g HCHO is dissolved. The soln is warmed to -10.deg., 10-7 mole I in 2 ml PhMe added, and the mixture polymerized 60 min [final temperature 60.deg. suspension concentration 62g/l; intrinsic

viscosity (η) of II (2 weight % α-pinene at 60.deg.) 7.3]. One-half (700g) of the suspension is stirred with Ac2O under N and heated to 110.deg., followed by addition of 0.1g BF3; after 10 min the mol. weight of II is decreased with simultaneous stabilization of end groups. Bu2N (5 ml) is added, and the product II collected and washed with acetone and dried in vacuo at 80.deg. to give 46g (92% yield) of the acetylated II. The acetylated II (100 parts) is stabilized with 0.5 part malonic acid-xylenediamine copolymer (d.p. 100) and 0.1 part 2,2'-methylenebis (4-methyl-6-tert-butylphenol) to give a composition with η 1.5 and rate constant (of thermal decomposition) K222.deg. 0.01%/min.
IC C08G
CC 35-4 (Synthetic High Polymers)
ST copper chelate catalyst; polyoxymethylene chelate catalyst; formaldehyde polym catalyst copper
IT Polymerization catalysts
(copper phenylacetylacetone chelates, for formaldehyde)
IT Polyoxymethylenes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, catalysts for)
IT 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
IT 50-00-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, catalysts for)
IT 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
RN 36799-66-3 HCAPLUS
CN Copper, bis(3-phenyl-2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



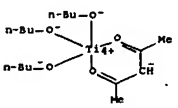
IT 50-00-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, catalysts for)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

L162 ANSWER 25 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1972:154463 HCAPLUS Full-text
DOCUMENT NUMBER: 76:154463
TITLE: Catalytic preparation of macromolecular

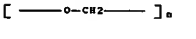
formaldehyde polymers
INVENTOR(S): Bonnema, Jentje; Pijpers, Emanuel M. J.
PATENT ASSIGNEE(S): Stamicarbon N. V.
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3647754	A	19720307	US 1970-23488	19700327 <--
PRIORITY APPLN. INFO.:			US 1970-23488 A	19700327 <--

ED Entered STN: 12 May 1984
AB High mol. weight polyformaldehyde*(I) was prepared by polymerizing HCHO containing 1-10% H2O at -40.deg. to +60.deg. in an organic solvent containing a titanium catalyst. Thus paraformaldehyde containing 3% H2O was pyrolyzed in paraffin oil at .sim. 170.deg., and the product was heated 1 hr with PhMe and titanium oleate [14536-10-8] at 20.deg. to give I, inherent viscosity = 7.4.
IC C08F
INCL 260067000
CC 35 (Synthetic High Polymers)
ST formaldehyde polym purifn; polyformaldehyde prepn; titanium polym catalyst
IT Polymerization catalysts
(titanium compds., for manufacture of polyformaldehyde)
IT 1292-47-3 5593-70-4 14536-10-8 14536-11-9 20025-99-4 22569-26-2 34794-90-6 36073-49-1 36073-50-4 36073-51-5 36073-52-6 36073-54-8
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for manufacture of polyformaldehyde)
IT 67-64-1, uses and miscellaneous 75-09-2 108-88-3, uses and miscellaneous 109-99-9, uses and miscellaneous 142-82-5, uses and miscellaneous
RL: USES (Uses)
(inert solvents, for polyformaldehyde manufacture)
IT 9002-81-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, catalysts for)
IT 34794-90-6
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for manufacture of polyformaldehyde)
RN 34794-90-6 HCAPLUS
CN Titanium, tributoxy(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



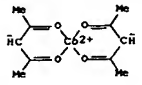
IT 9002-81-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, catalysts for)
RN 9002-81-7 HCAPLUS
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



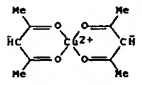
L162 ANSWER 26 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1972:552897 HCAPLUS Full-text
DOCUMENT NUMBER: 77:152897
TITLE: High-molecular formaldehyde polymers
INVENTOR(S): Sugiura, Shotaro; Ishii, Takami; Suzuki, Taro; Takigawa, Naohisa
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: Jpn. Tokkyo Koho, 5 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 47015097	B4	19720506	JP 1965-61357	19651008 <--

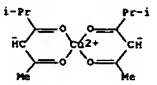
ED Entered STN: 12 May 1984
AB Metal chelates, e.g. cobalt acetylacetonate [13681-88-4] catalyzed the polymerization of HCHO in the presence of CO2 at -70.deg. to polyformaldehyde [9002-81-7], useful for preparing films.
IC C08G
CC 35-4 (Synthetic High Polymers)
ST metal chelate polym catalyst; formaldehyde polym catalyst; polyformaldehyde film; cobalt acetylacetonate catalyst
IT Polymerization catalysts
(cobalt acetylacetonate, for formaldehyde)
IT Polyoxymethylenes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, catalysts for)
IT 14024-48-7
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
IT 14024-48-7
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
RN 14024-48-7 HCAPLUS
CN Cobalt, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



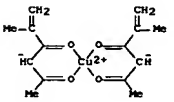
L162 ANSWER 27 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1973:72710 HCAPLUS Full-text
DOCUMENT NUMBER: 78:72710
TITLE: Metal-containing initiator system. XXXII. Polymerizations of aldehyde monomers using copper chelates of methacryloylacetone and isobutyrylacetone
AUTHOR(S): Misaki, Kazuichi; Otsu, Takayuki
CORPORATE SOURCE: Fac. Eng., Osaka City Univ., Osaka, Japan
SOURCE: Nippon Kagaku Kaishi (1972), (12), 2451-2
CODEN: NKAKB8; ISSN: 0369-4577
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
ED Entered STN: 12 May 1984
AB The polymns. of chloral [75-87-6] and formaldehyde [50-00-0] were catalyzed by Cu chelates (2:1 molar ratio ketone to Cu) of methacryloylacetone (I), isobutyrylacetone (II) and acetylacetone (III). These chelates did not catalyze the polymerization of acetaldehyde. The catalytic activities for the polymerization of chloral were II Cu chelate >> III Cu chelate .geq. I Cu chelate. The polymers consisted of a polyether chain structure.
CC 35-4 (Synthetic High Polymers)
IT Polyoxymethylenes, preparation
RL: PREP (Preparation)
(catalysts for)
IT Polymerization catalysts
(copper diketone complexes, for aldehydes)
IT 13395-16-9 15716-71-9 23401-30-1
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of aldehydes)
IT 50-00-0, reactions 75-87-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, catalysts for)
IT 13395-16-9 15716-71-9 23401-30-1
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of aldehydes)
RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



RN 15716-71-9 HCAPLUS
CN Copper, bis(5-methyl-2,4-hexanedionato-O,O')- (9CI) (CA INDEX NAME)



RN 23401-30-1 HCAPLUS
CN Copper, bis(5-methyl-5-hexene-2,4-dionato-κO,κO')- (9CI) (CA INDEX NAME)



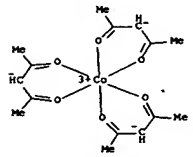
IT 50-00-0, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, catalysts for)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

L162 ANSWER 28 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1972:100624 HCAPLUS Full-text
DOCUMENT NUMBER: 76:100624
TITLE: Polymerizing formaldehyde
INVENTOR(S): Sugiura, Shotaro; Ishii, Takami; Suzuki, Taro; Takigawa, Naohisa
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: Jpn. Tokkyo Koho, 8 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

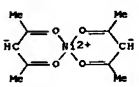
JP 46040704	B4	19711201	JP	19671110 <--

ED Entered STN: 12 May 1984
AB Formaldehyde [50-00-0], prepared from heat-decomposed paraformaldehyde, was polymerized in PhMe at -10.deg. with tris(acetylacetonato)cobalt [13681-88-4] to give 82% poly(oxymethylene) (I) [9002-81-7]. Acetylation of I with Ac2O in PhMe in the presence of C5H5N and BF3.Et2O gave acetylated I, useful for preparing films having a tensile strength 570 kg/cm2 and elongation 11%.
IC C08G
CC 36 (Plastics Manufacture and Processing)
ST formaldehyde polymn catalyst; polyoxymethylene acetylation; cobalt acetylacetonate catalyst; film polyoxymethylene
IT Polyoxymethylenes, preparation
RL: PREP (Preparation)
(acetylated, films)
IT Acetylation
(of polyoxymethylenes)
IT Polymerization catalysts
(tris(acetylacetonato)cobalt, for formaldehyde)
IT 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
IT 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

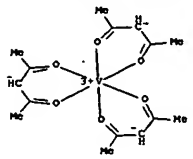


L162 ANSWER 29 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1972:100154 HCAPLUS Full-text
DOCUMENT NUMBER: 76:100154
TITLE: Polymerization of trioxane with metal acetylacetonates in the presence of acyl chlorides
AUTHOR(S): Misaki, Toshikazu; Otsu, Takayuki
CORPORATE SOURCE: Fac. Eng., Osaka City Univ., Osaka, Japan
SOURCE: Makromolekulare Chemie (1971), 150, 273-5
CODEN: MACEAK; ISSN: 0025-116X

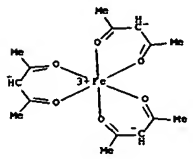
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Iron tris(acetylacetonate) [14024-18-1], zinc bis(acetylacetonate) [14024-63-6], and nickel bis(acetylacetonate) [3264-82-2] are effective initiators for trioxane polymerization in the presence of acetyl chloride [75-36-5] to give polytrioxane. Metal complexes of acetylacetone with other metals such as Mn, Cu, Co and TiO are not effective even in the presence of AcCl and Fe, Zn, and Ni complexes or AcCl are not effective by themselves. The optimum AcCl-complex ratio is 5-10. The order of the rate of polymerization in solvents is PhNO2>CH2Cl2>benzene.
CC 35 (Synthetic High Polymers)
ST trioxane polymn catalyst; acetylacetonate polymn catalyst; iron polymn catalyst; zinc polymn catalyst; nickel polymn catalyst; acetyl chloride polymn catalyst
IT Polymerization catalysts
(metal acetylacetonate-acetyl chloride, for trioxane)
IT 75-36-5 3264-82-2 13476-99-8 14024-18-1 14024-58-9 14024-63-6 14024-64-7 14284-89-0 17524-05-9 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for trioxane polymerization)
IT 9002-81-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, catalysts for)
IT 3264-82-2 13476-99-8 14024-18-1 14024-58-9 14024-63-6 14024-64-7 14284-89-0 17524-05-9 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for trioxane polymerization)
RN 3264-82-2 HCAPLUS
CN Nickel, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



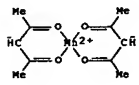
RN 13476-99-8 HCAPLUS
CN Vanadium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



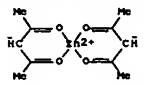
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



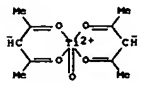
RN 14024-58-9 HCAPLUS
CN Manganese, bis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



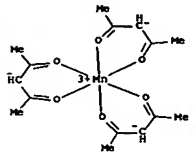
RN 14024-63-6 HCAPLUS
CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)



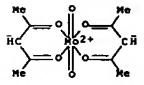
RN 14024-64-7 HCAPLUS
CN Titanium, oxobis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



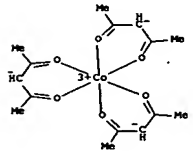
RN 14284-89-0 HCAPLUS
CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



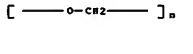
RN 17524-05-9 HCAPLUS
CN Molybdenum, dioxobis(2,4-pentanedionato-κO,κO')-, (OC-6-21)- (9CI) (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

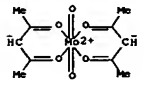


IT 9002-81-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, catalysts for)
RN 9002-81-7 HCAPLUS
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)

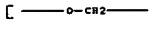


L162 ANSWER 30 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1971:498875 HCAPLUS Full-text
DOCUMENT NUMBER: 75:98875
TITLE: Influence of various initiators on the homo- and copolymerization of trioxane
AUTHOR(S): Burg, Karlheinz; Schlaf, Helmut; Cherdron, Harald
CORPORATE SOURCE: Farbwerke Hoechst A.-G., Frankfurt/Main-Hoechst, Fed. Rep. Ger.
SOURCE: Makromolekulare Chemie (1971), 145, 247-58
CODEN: MACEAK; ISSN: 0025-116X
DOCUMENT TYPE: Journal
LANGUAGE: German
ED Entered STN: 12 May 1984
AB The rate of the hydride shift side reaction occurring during the homopolymn. of trioxane and its copolymn. with dioxolane (I) was lower in the presence of perchloric acid, boron trifluoride etherate, triphenylmethyl hexafluoroarsenate, and triethyloxonium tetrafluoroborate relative to that in the presence of molybdenyl acetylacetonate (II) or tin tetrachloride. The transacetalization reaction was suppressed in favor of the propagation reaction when HClO4 and II were used as initiators, and these initiators gave nonstatistical copolymers. BF3.Et2O and SnCl4 did not suppress transacetalization and gave statistical copolymers. The transacetalization

reaction leading to the connection of 2 I units was the least favored transacetalization reaction.
CC 35 (Synthetic High Polymers)
ST trioxane dioxolane polymn mechanism; hydride shift trioxane polymn; transacetalization trioxane polymn
IT Polyoxymethylenes, preparation
RL: PREP (Preparation)
(catalysts for)
IT Polymerization catalysts
(for polyoxymethylene manufacture, transacetalization in relation to)
IT 109-63-7 368-39-8 437-15-0 7601-90-3, uses and miscellaneous 7646-78-8 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of trioxane)
IT 9002-81-7P 24969-26-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, catalysts for)
IT 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of trioxane)
RN 17524-05-9 HCAPLUS
CN Molybdenum, dioxobis(2,4-pentanedionato-κO,κO')-, (OC-6-21)- (9CI) (CA INDEX NAME)

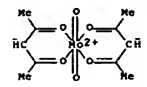


IT 9002-81-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, catalysts for)
RN 9002-81-7 HCAPLUS
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



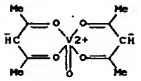
L162 ANSWER 31 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1971:112511 HCAPLUS Full-text
DOCUMENT NUMBER: 74:112511
TITLE: Morphospecific polymerization: poly(oxymethylene) copolymers
AUTHOR(S): Chen, Catherine S. H.; Wenger, Franz
CORPORATE SOURCE: Celanese Res. Co., Summit, NJ, USA
SOURCE: Journal of Polymer Science, Polymer Chemistry Edition

(1971), 9(1), 33-49
CODEN: JPLCAT; ISSN: 0449-296X
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Molybdenyl bis(acetylacetonate) catalyzed trioxane morphospecific homopolymn. and copolymn. with 1,3-dioxolane, giving higher m.p. polymers than ordinary cationic catalysts. The m.ps. of the copolymers as crystallized during polymerization were 10-20° higher than those of the same polymers after recrystn. The effects of catalyst concentration, H2O, MeOH, methylal, HCO2H, and C6H6 on the yield, polymerization rate, and phys. props. of the polymers are given. A mechanism based on monomer-catalyst complexes for homopolymn. and copolymn. is given.
CC 35 (Synthetic High Polymers)
IT Polyoxymethylenes, preparation
RL: PREP (Preparation)
(catalysts for morphospecific)
IT Polymerization catalysts
(molybdenum complexes, for polyoxymethylenes, morphospecific)
IT Polymerization
(morphospecific, of trioxane)
IT 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of trioxane, morphospecific)
IT 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of trioxane, morphospecific)
RN 17524-05-9 HCAPLUS
CN Molybdenum, dioxobis(2,4-pentanedionato-κO,κO')-, (OC-6-21)-(9CI) (CA INDEX NAME)

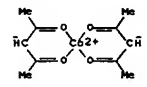


L162 ANSWER 32 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1970:425961 HCAPLUS Full-text
DOCUMENT NUMBER: 73:25961
TITLE: Metal-containing initiator systems. 27. Polymerizations of isobutyl vinyl ether, α-methylstyrene, trioxane, and styrene oxide with metal acetylacetonates
AUTHOR(S): Nishikawa, Yukitoshi; Otsu, Takayuki
CORPORATE SOURCE: Fac. Eng., Osaka City Univ., Osaka, Japan
SOURCE: Kogyo Kagaku Zasshi (1970), 73(4), 796-9
CODEN: KGKZA7; ISSN: 0368-5462
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
ED Entered STN: 12 May 1984

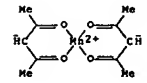
AB The initiating activity of several kinds of metal acetylacetonates was examined in the polymerization of iso-Bu vinyl ether (I), α-methylstyrene (II), trioxane (III), and styrene oxide (IV). MoO2 acetylacetonate (V) was the only compound active for the polymerization of all 4 monomers. The polymerization of I was carried out at 80° in C6H6 solution with Mn, Co, MnO2, TiO, TiCl2, and VO acetylacetonates. Among these compds., only V was active, and the activity of V itself was realized by the co-catalytic effect of some additives, e.g., H2O or AcCl. The optimum amount of co-catalytic H2O was 0.33 mole/l. when the concentration of V was 0.0155 mole/l., i.e., the optimum ratio of H2O to V was about 20, which is considerably larger than the amount of H2O required in usual cationic polymerization II was polymerized by V or TiO acetylacetonate (VI) at 30° but the polymerization rate was low, giving less than 1% of polymer after 32 days. III was polymerized at 80° by V, VI, and VO acetylacetonate, but the activity of the latter 2 was far less than that of V. IV could be polymerized by several acetylacetonates, and here again V was far more active than the others. The ir spectra of the polymer of IV indicated a polyether structure, and the presence of crystallinity was suggested in the MeOH-insol. fraction. The addition of H2O was also effective for the polymerization of IV. The monomer reactivity ratios in the copolymn. of styrene (M1) and Me methacrylate (M2) with V as the initiator were r1 = 19.7 and r2 = 0, indicating that the mechanism of polymerization was cationic, although it was contradictory to the results of C. D. Kennedy, et al. (1966). A discussion is given on the mechanism of initiation, including cationic coordination.
CC 35 (Synthetic High Polymers)
IT Polyoxymethylenes, preparation
Vinyl compounds, preparation
RL: PREP (Preparation)
(catalysts for)
IT Polymerization catalysts
(metal pentanedione complexes, for ethers and vinyl compds.)
IT 3153-26-2 14024-48-7 14024-58-9 14024-64-7 17099-86-4 17524-05-9 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of vinyl compds.)
IT 3153-26-2 14024-48-7 14024-58-9 14024-64-7 17099-86-4 17524-05-9 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of vinyl compds.)
RN 3153-26-2 HCAPLUS
CN Vanadium, oxobis(2,4-pentanedionato-κO,κO')-, (SP-5-21)- (9CI) (CA INDEX NAME)



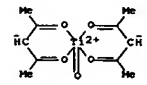
RN 14024-48-7 HCAPLUS
CN Cobalt, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



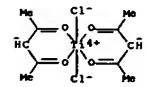
RN 14024-58-9 HCAPLUS
CN Manganese, bis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



RN 14024-64-7 HCAPLUS
CN Titanium, oxobis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)

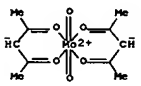


RN 17099-86-4 HCAPLUS
CN Titanium, dichlorobis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)

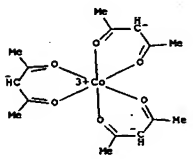


RN 17524-05-9 HCAPLUS

CN Molybdenum, dioxobis(2,4-pentanedionato-κO,κO')-, (OC-6-21)-(9CI) (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



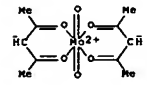
L162 ANSWER 33 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1969:471189 HCAPLUS Full-text
DOCUMENT NUMBER: 71:71189
TITLE: Preparation of poly(oxymethylene) catalyzed by metal acetylacetonates
INVENTOR(S): Kennedy, Carl D.
PATENT ASSIGNEE(S): Continental Oil Co.
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3457227	A	19690722	US 1965-439090	19650311 <--
PRIORITY APPLN. INFO.:			US 1965-439090 A	19650311 <--

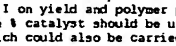
ED Entered STN: 12 May 1984
AB High-mol.-weight poly(oxymethylene) of improved thermal stability was prepared by polymerizing trioxane (I) in the presence of Mo dioxydiacetylacetonate (II). The resulting polymer chains contained a carbonyl group thereby contributing to improved stability of the polymeric product. Thus, initial

expts. carried out to study the effect of varying the relative amts. of reaction solvent and I on yield and inherent viscosity of the polymer product revealed that maximum yields of poly(oxymethylene) were obtained at a ratio of 2 ml. solvent to 1 g. I or less. Suitable solvents included cyclohexane, heptane, hexane, and CH_2Cl_2. Addnl. expts. illustrating the effect of varying the molar ratio of II to I on yield and polymer properties showed that from 1 + 10-3 to .apprx.1.0 mole % catalyst should be used. Pressure was not critical in the polymerization which could also be carried out in the molten state. Data were presented to show that the poly(oxymethylene) prepared with II was more stable than polymer prepared from HCHO or I using a BF_3 catalyst. II was also effective in inducing a copolymn. of I with oxymethylene-containing cyclic ethers such as glycol formal. The polymers were treated with NH4OH to remove catalyst residues.

IC C08G
INCL 260067000
CC 35 (Synthetic High Polymers)
ST polyoxymethylenes; trioxane polymn; formaldehyde polymn; manganese acetylacetonates; catalyst trioxane polymn
IT Polyoxymethylenes, preparation
RL: PREP (Preparation)
(catalysts for, molybdenum pentanedione complexes as)
IT Solvents, uses and miscellaneous
(inert, in polyoxymethylene manufacture in presence of molybdenum pentanedione complex catalysts)
IT Polymerization catalysts
(molybdenum pentanedione complexes, for trioxane)
IT 1336-21-6
RL: USES (Uses)
(catalyst removal by, in polyoxymethylene manufacture)
IT 123-54-6D, 2,4-Pentanedione, molybdenum complexes 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of trioxane)
IT 9002-81-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, molybdenum pentanedione complex catalysts for)
IT 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of trioxane)
RN 17524-05-9 HCAPLUS
CN Molybdenum, dioxobis(2,4-pentanedionato-κO,κO')-, (OC-6-21)-(9CI) (CA INDEX NAME)



IT 9002-81-7P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, molybdenum pentanedione complex catalysts for)
RN 9002-81-7 HCAPLUS
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)

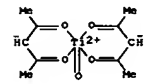


L162 ANSWER 34 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1969:513478 HCAPLUS Full-text
DOCUMENT NUMBER: 71:113478
TITLE: Oxymethylene and thiomethylene polymers
INVENTOR(S): Chen, Catherine S. H.
PATENT ASSIGNEE(S): Celanese Corp.
SOURCE: Ger. Offen., 21 pp.
CODEN: GWXXEX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

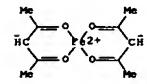
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1901953		19690911	DE 1969-1901953	19690116 <--
FR 2000345			FR	
GB 1202683			GB	
US 3506615		19700414	US	19680117 <--
PRIORITY APPLN. INFO.:			US	19680117 <--

ED Entered STN: 12 May 1984
AB Oxymethylene and thiomethylene polymers are prepared by polymerization of the appropriate monomers in the presence of a catalyst containing titanyl acetylacetonate (I) and Fe(II) acetylacetonate (II) and (or) Fe(III) acetylacetonate (III). Thus, a mixture of 0.0359 g. III and 0.027 g. I was added to a melt of 103 g. trioxane (IV) and 5 g. 1,3-dioxane, and the mixture was held 8 hrs. at 65° to give 79.2 g. copolymer, inherent viscosity 0.72 (0.1% in p-ClC6H4OH containing 2% α-pinene, 60°). A IV-4-methyl-m-dioxane copolymer was similarly prepared Melt polymerization of IV occurred only in the presence of III or II with I and not with I, II, or III alone. A solution of 41.1 parts IV and 20 parts cyclohexane was heated and distilled over Na, and a catalyst of 0.0018 part I and 0.0166 part III was added. The mixture was purged with dry Ar and heated 30 min. at 100° to give an oxymethylene polymer, m. 180°. IV-1,3-dioxolane and IV-m-dioxane copolymers were similarly prepared Solution polymerization of trithiane in biphenyl gave a thiomethylene polymer, m. 257°. The addition of amidines and alkylenebisphenols to oxymethylene polymers to improve their thermal stability is also described. The catalyst mixts. used were relatively insensitive to bases, thus allowing the use of monomers containing aqueous and alc. impurities.
IC C08G
CC 35 (Synthetic High Polymers)
ST polyoxymethylenes prepn; polythiomethylenes prepn; trioxane polymn; trithiane polymn
IT Polyoxymethylenes, preparation
RL: PREP (Preparation)
(catalysts for, transition metal pentanedione complexes as)
IT 14024-64-7
RL: CAT (Catalyst use); USES (Uses)
(catalysts from iron pentanedione complexes and, for polymerization of trioxanes)

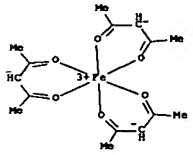
IT 14024-17-0 14024-18-1
RL: CAT (Catalyst use); USES (Uses)
(catalysts from titanium pentanedione complexes and, for polymerization of trioxanes)
IT 123-54-6D, 2,4-Pentanedione, transition metal complexes
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of trioxanes)
IT 14024-64-7
RL: CAT (Catalyst use); USES (Uses)
(catalysts from iron pentanedione complexes and, for polymerization of trioxanes)
RN 14024-64-7 HCAPLUS
CN Titanium, oxobis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



IT 14024-17-0 14024-18-1
RL: CAT (Catalyst use); USES (Uses)
(catalysts from titanium pentanedione complexes and, for polymerization of trioxanes)
RN 14024-17-0 HCAPLUS
CN Iron, bis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



L162 ANSWER 35 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1970:121998 HCAPLUS Full-text
DOCUMENT NUMBER: 72:121998
TITLE: Polymerization of formaldehyde by metal chelate catalysts
AUTHOR(S): Ishii, Takami; Suzuki, Taro
CORPORATE SOURCE: Tokyo Polymer Res. Lab., Ube Ind. Ltd., Chiba, Japan
SOURCE: Kogyo Kagaku Zasshi (1969), 72(12), 2644-9
CODEN: KGKZA7; ISSN: 0368-5462
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
ED Entered STN: 12 May 1984
AB Some metal chelates show remarkable catalytic activity for the polymerization of HCHO. The polymerization is performed by using metal chelates of β-diketone, thio-β-diketone, salicylaldehyde, and the Schiff base of salicylaldehyde with a diamine in inert solvents, such as toluene or n-C7H16, at temps. between -10 and 20°, to give white crystalline polymers with high mol. wts. In the case of metal acetylacetonates, the overall rate of polymerization is affected by the kind and valency state of the central metal and the substituent in the ligand. The order of catalytic activity is as follows: Cu(II) > Zr(II) > Ni(II) > Mn(III) > Co(II) > Th(IV) > Mn(II) > Mg(II) > Zn(II) > Fe(III) > Fe(II) > Co(III) » Al(IV). Cu 3-phenylacetylacetonate has the maximum activity and Co tris(acetylacetonate) gives the highest-mol.-weight polymer. The polymerization rate increased with increasing stability constant of the metal chelates, and with increasing basicity of the reaction medium. The results suggest that polymerization took place by a coordination mechanism.
CC 35 (Synthetic High Polymers)
ST formaldehyde polymn metal chelate; metal chelate formaldehyde polymn; diketone chelate formaldehyde polymn; salicylaldehyde chelate formaldehyde polymn
IT Polyoxymethylenes, preparation
RL: PREP (Preparation)
(catalysts for)
IT Schiff bases
RL: USES (Uses)
(copper complexes, catalysts, for polymerization of formaldehyde)
IT Polymerization
(mechanism of catalytic, of formaldehyde in presence of transition metal complexes)
IT Polymerization catalysts

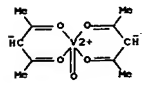
(transition metal complexes, for formaldehyde)

IT Phenol, 2,2'-[ethylenebis(nitrilomethylidyne)]di-, cobalt complexes
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)

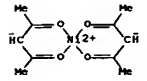
IT 95-45-4D, 2,3-Butanedione, dioxime, cobalt complexes 107-15-3D, Ethylenediamine, transition metal complexes 123-54-6D, 2,4-Pentanedione, transition metal complexes 366-18-7D, 2,2'-Bipyridine, copper complexes 3153-26-2 3264-82-2 13395-16-9 13476-99-8 13963-57-0 13978-88-6 14024-17-0 14024-18-1 14024-48-7 14024-56-7 14024-58-9 14024-63-6 14024-64-7 14263-52-6 14284-89-0 14689-45-3 17499-48-8 17501-44-9 18115-70-3 21679-31-2 21679-46-9 28984-05-6 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)

IT 3153-26-2 3264-82-2 13395-16-9 13476-99-8 14024-17-0 14024-18-1 14024-48-7 14024-58-9 14024-63-6 14024-64-7 14263-52-6 14284-89-0 14689-45-3 17501-44-9 21679-31-2 21679-46-9 28984-05-6 36799-66-3
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)

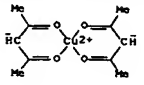
RN 3153-26-2 HCAPLUS
CN Vanadium, oxobis(2,4-pentanedionato-κO,κO')-, (SP-5-21)- (9CI) (CA INDEX NAME)



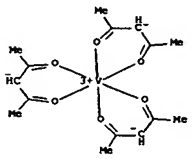
RN 3264-82-2 HCAPLUS
CN Nickel, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



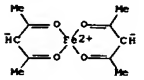
RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



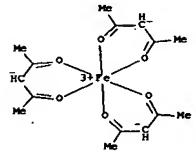
RN 13476-99-8 HCAPLUS
CN Vanadium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



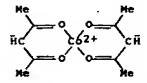
RN 14024-17-0 HCAPLUS
CN Iron, bis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



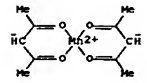
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



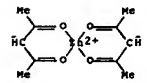
RN 14024-48-7 HCAPLUS
CN Cobalt, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



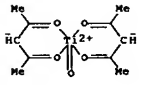
RN 14024-58-9 HCAPLUS
CN Manganese, bis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



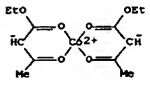
RN 14024-63-6 HCAPLUS
CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)



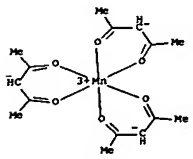
RN 14024-64-7 HCAPLUS
CN Titanium, oxobis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



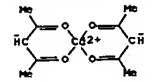
RN 14263-52-6 HCAPLUS
CN Cobalt, bis[ethyl 3-(oxo-κO)butanoato-κO']- (9CI) (CA INDEX NAME)



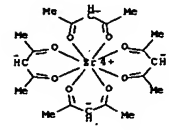
RN 14284-89-0 HCAPLUS
CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



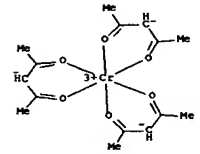
RN 14689-45-3 HCAPLUS
CN Cadmium, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)



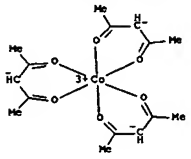
RN 17501-44-9 HCAPLUS
CN Zirconium, tetrakis(2,4-pentanedionato-κO,κO')-, (SA-8-11''11''1'1'''1'1'''')- (9CI) (CA INDEX NAME)



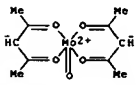
RN 21679-31-2 HCAPLUS
CN Chromium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



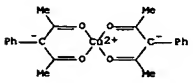
RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 28984-05-6 HCAPLUS
CN Molybdenum, oxobis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)

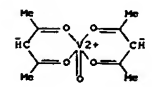


RN 36799-66-3 HCAPLUS
CN Copper, bis(3-phenyl-2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)

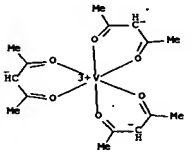


L162 ANSWER 36 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1969:524997 HCAPLUS Full-text
DOCUMENT NUMBER: 71:124997
TITLE: Initiation of polymerization of some vinyl monomers and cyclic ethers with metal chelates
AUTHOR(S): Nishikawa, Yukitoshi; Otsu, Takayuki
CORPORATE SOURCE: Osaka City Univ., Osaka, Japan
SOURCE: Makromolekulare Chemie (1969), 128, 276-8
CODEN: MACEAK; ISSN: 0025-116X
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984

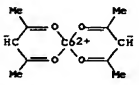
AB Various vinyl monomers and cyclic ethers were polymerized in the presence of Mo, Ti, or V acetylacetonates (acac). The following polymns. were carried out: (monomer, polymerization temperature, polymerization time in hrs., catalyst, catalyst concentration in moles/l., and % polymer yield given) iso-Bu vinyl ether (I), 80°, 9, Mn(acac)3 (II), 1.42 +'102, 0; I, 80°, 9, Co(acac)3 (III), 1.40 + 102, 0; I, 80°, 9, Mn(acac)2 (IV), 1.96 + 102, 0; I, 80°, 9, Co(acac)2 (V), 1.95 + 102, 0; I, 80°, 9, MoO2(a-cac)2 (VI), 1.55 + 102, 21.8; I, 80°, 9, TiO(acac)2 (VII), 1.91 + 102, 0.1; I, 80°, 9, VO(acac)2 (VIII), 1.89 + 102, 0; α-methylstyrene (IX), 30°, 768, II, 1.42 + 102, 0; IX, 30°, 768, III, 1.40 + 102, 0; IX, 30°, 768, IV, 1.96 + 102, 0; IX, 30°, 768, V, 1.95 + 102, 0; IX, 30°, 768, VI, 1.55 + 102, 0.5; IX, 30°, 768, VII, 1.91 + 102, 0.6; IX, 30°, 768, VIII, 1.89 + 102, 0; trioxane (X), 80°, 5, II, 1.42 + 102, 0; X, 80°, 5, III, 1.40 + 102, 0, X, 80°, 5, IV, 1.96 + 102, 0; X, 80°, 5, V, 1.95 + 102, 0; X, 80°, 5, VI, 1.55 + 102, 17.0; X, 80°, 5, VII, 1.91 + 102, 1.4; X, 80°, 5, VIII, 1.89 + 102, 1.1. Yields of 20.3 and .apprx.100% were obtained by polymerizing styrene oxide in solution and bulk, resp., in the presence of VI. Low yields were obtained in the presence of VII, V(acac)3 or Ca(acac)2. VI also induced polymerization of propylene oxide, epichlorohydrin, and allyl glycidyl ether, presumably by a coordinated or cationic mechanism.
CC 35 (Synthetic High Polymers)
IT Polyoxymethylenes, preparation
RL: PREP (Preparation)
(catalysts for, metal acetylacetonate)
IT Polymerization catalysts
(metal acetylacetonate, for cyclic ethers and vinyl compds.)
IT 123-54-6D, 2,4-Pentanedione, metal complexes 3153-26-2 13476-99-8 14024-48-7 14024-64-7 14284-89-0 17524-05-9 19372-44-2 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of cyclic ethers and vinyl compds.)
IT 14024-58-9P, Manganese, bis(2,4-pentanedionato)-
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 3153-26-2 13476-99-8 14024-48-7 14024-64-7 14284-89-0 17524-05-9 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of cyclic ethers and vinyl compds.)
RN 3153-26-2 HCAPLUS
CN Vanadium, oxobis(2,4-pentanedionato-κO,κO')-, (SP-5-21)- (9CI) (CA INDEX NAME)



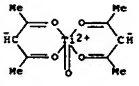
RN 13476-99-8 HCAPLUS
CN Vanadium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



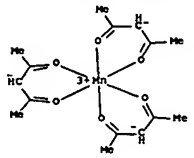
RN 14024-48-7 HCAPLUS
CN Cobalt, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



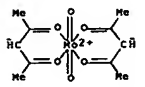
RN 14024-64-7 HCAPLUS
CN Titanium, oxobis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



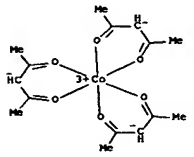
RN 14284-89-0 HCAPLUS
CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



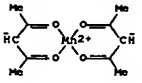
RN 17524-05-9 HCAPLUS
CN Molybdenum, dioxobis(2,4-pentanedionato-κO,κO')-, (OC-6-21)-(9CI) (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

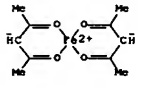


IT 14024-58-9P, Manganese, bis(2,4-pentanedionato)-
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 14024-58-9 HCAPLUS
CN Manganese, bis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)

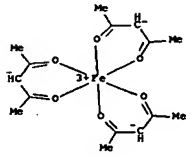


L162 ANSWER 37 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1969:502316 HCAPLUS Full-text
DOCUMENT NUMBER: 71:102316
TITLE: Polymerization of formaldehyde in the presence of metallic chelates
AUTHOR(S): Schlosser, L.; Niculiu, C.
SOURCE: Materiale Plastice (Bucharest, Romania) (1969), 6(3), 127-8
CODEN: MPLAAM; ISSN: 0025-5289
DOCUMENT TYPE: Journal
LANGUAGE: Romanian
ED Entered STN: 12 May 1984
AB The effects of initiator concentration, solvent, and central metal atom on the polymerization of HCHO in the presence of various metal acetylacetonates were investigated. HCHO was generated by pyrolysis of α- poly(oxymethylene). Metal acetylacetonate initiators used were those derived from Al(III), Cr(III), Co(II), Co(III), Fe(II), Fe(III), Zn(II), and Mn(III). Polymerization was carried out by introducing a HCHO-N stream into 800 g. heptane or PhMe containing the initiator and an antioxidant. The order of reactivity of the acetylacetonates was Al(III) = Cr(III) < Co(II) < Co(III) < Fe(II) < Fe(III) < Zn(II) < Mn(III). The lower valence acetylacetonates of multivalent metals were more stable and hence less efficient as polymerization catalysts. The concentration of initiator had little effect on the polymerization The solvent had a marked effect on the intrinsic viscosity and thermal stability constant of the polymers obtained. The formula [η] = t/(a + bt), where [η] = intrinsic viscosity, t = time, and a and b are coeffs. characteristic of each curve was obtained by a graphical method, and allowed calcn. of the reaction time necessary to obtain a polymer of a given viscosity. The distribution curves of polymers obtained in heptane and PhMe were virtually superimposable on those of Delrin 500 and Delrin 150, resp. The polymer obtained in PhMe was more homogeneous than that obtained in heptane. Acetylacetonate initiators were less sensitive to the impurities generally found in HCHO, since polymers with greater homogeneity were obtained.
CC 35 (Synthetic High Polymers)
ST polymn formaldehyde metal chelates; chelates polymn formaldehyde metal; metal chelates polymn formaldehyde; formaldehyde metal chelates polymn ; acetylacetonate chelate initiators; initiators acetylacetonate chelate
IT Polyoxymethylenes, preparation
RL: PREP (Preparation)
(catalysts for, metal pentanedione complexes as)
IT Solvent effects
(in polymerization of formaldehyde in presence of metal chelates)
IT Polymerization catalysts
(metal pentanedione complexes, for formaldehyde)
IT Polymerization

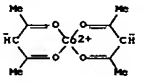
(of formaldehyde, solvent effects in)
IT 123-54-6D, 2,4-Pentanedione, metal complexes 13963-57-0 14024-17-0 14024-18-1 14024-48-7 14024-63-6 14284-89-0 21679-31-2 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
IT 108-88-3, uses and miscellaneous 142-82-5, uses and miscellaneous
RL: USES (Uses)
(solvents, for polymerization of formaldehyde in presence of metallic chelates)
IT 14024-17-0 14024-18-1 14024-48-7 14024-63-6 14284-89-0 21679-31-2 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
RN 14024-17-0 HCAPLUS
CN Iron, bis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



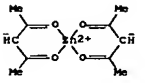
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



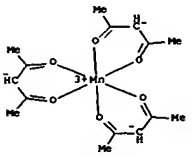
RN 14024-48-7 HCAPLUS
CN Cobalt, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



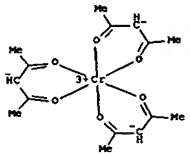
RN 14024-63-6 HCAPLUS
CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)



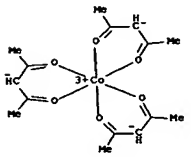
RN 14284-89-0 HCAPLUS
CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 21679-31-2 HCAPLUS
CN Chromium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)

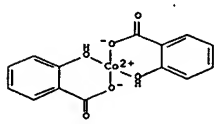


RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



L162 ANSWER 38 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1970:499269 HCAPLUS Full-text
DOCUMENT NUMBER: 73:99269
TITLE: Polymerization and copolymerization of aldehydes
AUTHOR(S): Kharitonov, G. V.; Tkacheva, A. P.; Purikova, V. P.
CORPORATE SOURCE: USSR
SOURCE: Tr. Kirg. Gos. Univ., Ser. Khim. Nauk (1968) 12-21
From: Ref. Zh., Khim. 1969, Abstr. No. 12S133
CODEN: 17MGAC
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 12 May 1984
AB Polymerization and copolymn. capacity of series of aldehydes with various radicals was studied with the reaction conducted in the presence of electrophilic and nucleophilic catalysts. The substituents having a pos. inductive effect significantly decreased the polymerization and copolymn. capacity of aldehydes; but the substituents having a neg. inductive effect activated the carbonyl group. The substituent conjugations (furan and C6H6 nuclei) also stabilized the carbonyl π-bond under the pos. effect, making it very difficult for furfural to transform to a heterochain polymer. The presence of a nucleophilic catalyst yielded a new HCHO copolymer with furfural

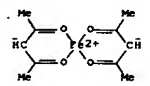
having 12 furfural units/100 HCHO units. Copolymn. of furfural and HCHO in the presence of an electrophilic catalyst in a neutral medium gave a C-chain copolymer rather than a heterochain copolymer. The HCHO copolymer with vinylfuran had a higher m.p. than polyformaldehyde and increased with vinylfuran content. The induction period and polymerization and copolymn. rate of HCHO and vinylfuran depended on the nature of catalyst and solvent. HCHO copolymers were also obtained with BzH and cinnamaldehyde, acrylonitrile, furylethylene malonate and butyl methacrylate. Polycondensation of furfural in the presence of an electrophilic catalyst formed infusible and insol. crosslinked polymers.
CC 35 (Synthetic High Polymers)
ST aldehydes polymn copolymn catalytic; catalytic copolymn polymn aldehydes; formaldehyde polymn catalytic; electrophilic catalysis aldehyde polymn; nucleophilic catalysis aldehyde polymn; furfural polycondensation
IT Polymerization catalysts
(ammonia derivs. and metal salts, for aldehydes)
IT 5931-89-5 7664-41-7, uses and miscellaneous 12125-01-8 13586-84-0 30588-10-4 55195-85-2
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of aldehydes)
IT 55195-85-2
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of aldehydes)
RN 55195-85-2 HCAPLUS
CN Cobalt, bis[2-(hydroxy-κO)benzoato-κO]- (9CI) (CA INDEX NAME)



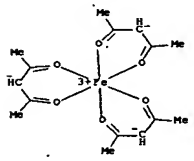
L162 ANSWER 39 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1967:86130 HCAPLUS Full-text
DOCUMENT NUMBER: 66:86130
TITLE: Polymerization of formaldehyde in the presence of a polyvalent metal chelate of a beta-diketone
INVENTOR(S): Reynolds, Richard E.
PATENT ASSIGNEE(S): Tenneco Chemicals, Inc.
SOURCE: U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3305529		19670221	US 1963-293843	19630709 <--

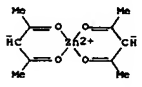
ED Entered STN: 12 May 1984
AB Anhydrous HCHO is polymerized using polyvalent metal chelates of acetylacetone as initiators and then acetylated to yield branched chain poly(oxymethylene) polyacetates with mol. wts. 10,000-190,000. Thus, 200 g. α-poly(oxymethylene) is added over 2 hrs. to 1500 g. di-Et ether of diethylene glycol containing 4 ml. H3PO4 at 140-60°, producing HCHO vapor which is passed through 2 traps at 0° and -20°, resp., to give anhydrous HCHO. The HCHO is added over 35 min. at 27-33° to 2000 g. (AcO)2CH2 and 0.148 g. Zn acetylacetonate in 7.4 ml. PhMe. After Ac2O 20, NaOAc 0.8, and PrCH(C6H2(Me)(OH)tert-Bu-2,4,5)2 (II) 0.4 g. are added and refluxed 1 hr. and the product is separated, washed with water and with acetone containing 0.1 g. II, and dried in vacuo to give 86.7 g. branched-chain poly(oxymethylene) polyacetate, mol. weight 62,500 and, from Brabender Plasticorder tests, degradation slope 7.2, shear slope 10.8, rotor speed at maximum torque 80 rpm., torque loss due to shear 66%, and final torque 440 m.-g. Similarly, polymers with mol. wts. 45,000, 47,000, 10,000, 190,000, 27,000, 10,000, 21,000, -, were produced when ferric, ferrous, Al, manganic, cobaltic, Cr, Zr, and titanyl acetylacetonates, resp., were used as the initiators.
INCL 260067000
CC 35 (Synthetic High Polymers)
ST CHELATE CATALYZED POLYFORMALDEHYDES; POLYFORMALDEHYDES CHELATE CATALYZED; FORMALDEHYDE POLYMN CHELATE CATALYZED; POLYMN FORMALDEHYDE CHELATE CATALYZED; CHELATE CATALYZED FORMALDEHYDE POLYMN
IT Polymerization catalysts
(metal-2,4-pentanedione complexes as, for formaldehyde)
IT Acetylation
(of poly(oxymethylene))
IT 13963-57-0 14024-17-0 14024-18-1 14024-63-6 14024-64-7 14284-89-0 17501-44-9 21679-31-2 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
IT 9002-81-7P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acetylation of, catalysts for, metal-2,4-pentanedione complexes as)
IT 14024-17-0 14024-18-1 14024-63-6 14024-64-7 14284-89-0 17501-44-9 21679-31-2 21679-46-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)
RN 14024-17-0 HCAPLUS
CN Iron, bis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



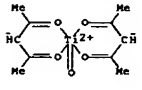
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



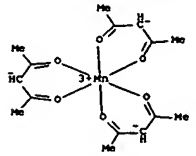
RN 14024-63-6 HCAPLUS
CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)



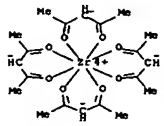
RN 14024-64-7 HCAPLUS
CN Titanium, oxobis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



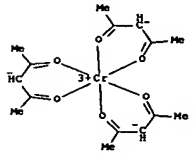
RN 14284-89-0 HCAPLUS
CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



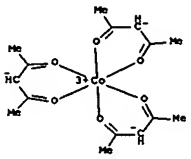
RN 17501-44-9 HCAPLUS
CN Zirconium, tetrakis(2,4-pentanedionato-κO,κO')-, (SA-8-11''11''1'1'''1'1''')- (9CI) (CA INDEX NAME)



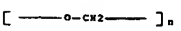
RN 21679-31-2 HCAPLUS
CN Chromium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



IT 9002-81-7P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acetylation of, catalysts for, metal-2,4-pentanedione complexes as)
RN 9002-81-7 HCAPLUS
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)

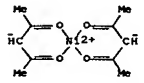


L162 ANSWER 40 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1965:463654 HCAPLUS Full-text
DOCUMENT NUMBER: 63:63654
ORIGINAL REFERENCE NO.: 63:11732c-e
TITLE: Formaldehyde copolymers
INVENTOR(S): Haszeldine, Robert N.; Birchall, John M.; Wood, Derek H.
SOURCE: 2 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1002002		19650818	GB 1963-33001	19630821 <--
PRIORITY APPLN. INFO.:			GB	19630821 <--

ED Entered STN: 22 Apr 2001
AB Copolymers of HCHO and butadiene (I) are prepared by subjecting the anhydrous monomer mixture to uv radiation or by heating in the presence of a free radical initiator, such as (tert-BuO)2. The preferred polymerization temperature range is 50-170°. Thus, a liquid phase mixture of 0.15 mole I and 0.4 mole HCHO was irradiated at 100° in a 7-ml. silica tube for 24 hrs. by means of a 500-w. Hg discharge tube. The initial pressure was approx. 30 atmospheric The polymeric product weighed 2.0 g. and contained approx. 0.3 g. polyformaldehyde. The 1.7 g. yield of copolymer was separated mech. from the homopolymer as a rubbery material. Analysis showed that it contained C 62.1 and H 8.3%, indicating a molar ratio of I to HCHO units of 1:2.

IC C08F; C08G
CC 45 (Synthetic High Polymers)
IT Polyoxymethylenes
(butadiene modified)
IT Formaldehyde, polymer with butadiene
RL: PREP (Preparation)
IT 3264-82-2, Nickel, bis(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO with vinyl compds.)
IT 78-94-4, 3-Buten-2-one
(polymerization of, with HCHO or trioxane)
IT 50-00-0, Formaldehyde
(polymerization of, with vinyl compds.)
IT 3264-82-2, Nickel, bis(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO with vinyl compds.)
RN 3264-82-2 HCAPLUS
CN Nickel, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)

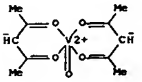


IT 50-00-0, Formaldehyde
(polymerization of, with vinyl compds.)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

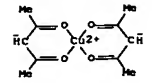
L162 ANSWER 41 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1965:446749 HCAPLUS Full-text
DOCUMENT NUMBER: 63:46749
ORIGINAL REFERENCE NO.: 63:8518c-d
TITLE: Poly(oxymethylenes)
INVENTOR(S): Raum, Alaric L. J.
PATENT ASSIGNEE(S): Distillers Co. Ltd.
SOURCE: 2 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 998347		19650714	GB 1963-41390	19631019 <--

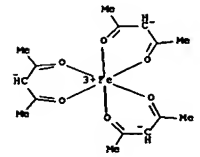
PRIORITY APPLN. INFO.: GB 19631019 <--
ED Entered STN: 22 Apr 2001
AB HCHO is polymerized in an inert solvent in the presence of a metal acetylacetonate as catalyst. For example, gaseous HCHO was prepared by the thermal decomposition of cyclohexyl hemiformal and was purified by passage through a glass trap and an 18-in. Cu coil each maintained at ~15%. The HCHO (82 g.) was fed into an 700-ml. stirred flask containing 200 ml. 1,2-dichloroethane and 0.05 g. Al acetylacetonate. The reaction was allowed to proceed for 60 min., when the HCHO supply was cut off and 300 ml. EtOH added. The polymer was filtered, washed with EtOH, and dried in a vacuum oven at 40°. The polymer yield was 44.0 g.
IC C08G
CC 45 (Synthetic High Polymers)
IT Polyoxymethylenes
(manufacture by HCHO polymerization, with metal complexes of 2,4-pentanedione as catalysts)
IT Polymerization
(of formaldehyde, 2,4-pentanedione metal complex catalysts in)
IT 3153-26-2, Vanadium, oxobis(2,4-pentanedionato)-
(catalysts in polymerization of HCHO)
IT 13395-16-9, Copper, bis(2,4-pentanedionato)- 13963-57-0, Aluminum, tris(2,4-pentanedionato)- 14024-18-1, Iron, tris(2,4-pentanedionato)- 17501-44-9, Zirconium, tetrakis(2,4-pentanedionato)- 17501-79-0, Titanium, tetrakis(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO)
IT 50-00-0, Formaldehyde
(polymerization of, 2,4-pentanedione metal complex catalysts in)
IT 3153-26-2, Vanadium, oxobis(2,4-pentanedionato)-
(catalysts in polymerization of HCHO)
RN 3153-26-2 HCAPLUS
CN Vanadium, oxobis(2,4-pentanedionato-κO,κO')-, (SP-5-21)- (9CI) (CA INDEX NAME)



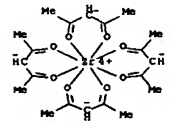
IT 13395-16-9, Copper, bis(2,4-pentanedionato)- 14024-18-1, Iron, tris(2,4-pentanedionato)- 17501-44-9, Zirconium, tetrakis(2,4-pentanedionato)- 17501-79-0, Titanium, tetrakis(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO)
RN 13395-16-9 HCAPLUS
CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



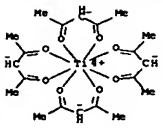
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 17501-44-9 HCAPLUS
CN Zirconium, tetrakis(2,4-pentanedionato-κO,κO')-, (SA-8-11'-11''1'1'''1'1''')- (9CI) (CA INDEX NAME)



RN 17501-79-0 HCAPLUS
CN Titanium, tetrakis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



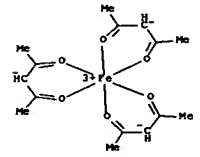
IT 50-00-0, Formaldehyde
(polymerization of, 2,4-pentanedione metal complex catalysts in)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

L162 ANSWER 42 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1965:410669 HCAPLUS Full-text
DOCUMENT NUMBER: 63:10669
ORIGINAL REFERENCE NO.: 63:1899h,1900a
TITLE: Polymerization of trioxane
INVENTOR(S): Barton, John M.; Raum, Alaric L. J.
PATENT ASSIGNEE(S): Distillers Co. Ltd.
SOURCE: 3 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 988335		19650407	GB 1962-47407	19621215 <--
FR 1384915			FR	

ED Entered STN: 22 Apr 2001
AB High-mol.-weight poly(oxymethylene) is prepared by polymerizing trioxane (I) by using ferric acetylacetonate (II) and an organic acid halide as catalysts. Thus, 25 ml. of a solution of I in ethylene chloride containing 15 g. I was mixed with 0.26 g. II in a dry tube under N and 0.5 ml. acetyl chloride was added. The polymer formed rapidly. The tube was placed in a water bath at 40° for 21.5 hrs. EtOH (20 ml.) was added and the polymer broken up and filtered, then washed with acetone, hot water, and acetone again. It was vacuum dried at 50°, giving 12.7 g.
IC B01J
CC 45 (Synthetic High Polymers)
IT Catalysts and Catalysis
(in polymerization of s-trioxane, organic acid halides and tris-(2,4-pentanedionato)iron(III) as)
IT Polymerization
(of s-trioxane, organic acid halide-tris(2,4-

pentanedionato)iron(III) catalysts in)
IT 14024-18-1, Iron, tris(2,4-pentanedionato)-
(catalysts from organic acid halides and, in polymerization of s-trioxane)
IT 75-36-5, Acetyl chloride 506-96-7, Acetyl bromide
(catalysts from tris(2,4-pentanedionato)iron and, in polymerization of s-trioxane)
IT 5023-81-4, Benzoyl chloride, O-(benzylsulfonyl)oxime
(catalysts from tris(2,4-pentanedionato)iron-(III) and, in polymerization of s-trioxane)
IT 123-54-6, 2,4-Pentanedione
(iron complexes, catalysts from organic acid halides and, in polymerization of s-trioxane)
IT 110-88-3, s-Trioxane
(polymerization of, organic acid halides and tris(2,4-pentanedionato)iron(III) as catalysts in)
IT 14024-18-1, Iron, tris(2,4-pentanedionato)-
(catalysts from organic acid halides and, in polymerization of s-trioxane)
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



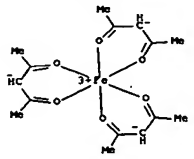
IT 110-88-3, s-Trioxane
(polymerization of, organic acid halides and tris(2,4-pentanedionato)iron(III) as catalysts in)
RN 110-88-3 HCAPLUS
CN 1,3,5-Trioxane (9CI) (CA INDEX NAME)

L162 ANSWER 43 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:19950 HCAPLUS Full-text
DOCUMENT NUMBER: 64:19950
ORIGINAL REFERENCE NO.: 64:3715b-c
TITLE: Catalysts for polymerization of

formaldehyde
PATENT ASSIGNEE(S): Chemische Werke Huels A.-G.
SOURCE: 4 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1399196		19650514	FR 1964-978841	19640619 <--
PRIORITY APPLN. INFO.:			DE	19630710 <--

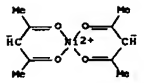
ED Entered STN: 22 Apr 2001
AB Polyformaldehyde is prepared by using metal carbonyl chelate as catalysts in organic solvents. For example, 0.2 g. of the chelate of acetylacetone with Al was dissolved in 4 l. of C6H6 with stirring. Then, 200 g. HCHO was distilled into the solution during 1 hr. Polymerization occurred instantaneously with evolution of heat. The reaction mixture was kept at 18° under N. After 30 min., the precipitate was filtered, washed with 2 l. C6H6, dried in air, and finally dried in vacuo. Thus, 195 g. of a snow-white polymer was obtained with a reduced viscosity of 1.25. A pressed sheet was flexible and elastic. Fe3+, Fe++, Ce3+, Cu++, Ni++, Mg++, Zn++, and Zr4+ acetyl acetonates, Cu benzoylacetonate, and cupric Et acetoacetate were also used.
IC C08G
CC 45 (Synthetic High Polymers)
IT Polyoxymethylenes
(manufacture by HCHO polymerization, with metal complexes of β-diketones as catalysts)
IT Polymerization
(of formaldehyde, β-diketone-metal complex catalysts for)
IT 14024-18-1, Iron, tris(2,4-pentanedionato)- 15653-01-7, Cerium, tris(2,4-pentanedionato)-
(catalysts, for polymerization of HCHO)
IT 3264-82-2, Nickel, bis(2,4-pentanedionato)- 13395-16-9, Copper, bis(2,4-pentanedionato)- 13963-57-0, Aluminum, tris(2,4-pentanedionato)- 14024-17-0, Iron, bis(2,4-pentanedionato)- 14024-56-7, Magnesium, bis(2,4-pentanedionato)- 14024-63-6, Zinc, bis(2,4-pentanedionato)- 14128-84-8, Copper, bis(1-phenyl-1,3-butanedionato)- 14284-06-1, Copper, bis(hydrogenacetoacetato)-, diethyl ester 17501-44-9, Zirconium, tetrakis(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO)
IT 50-00-0, Formaldehyde
(polymerization of, metal complexes of β-diketones as catalysts for)
IT 14024-18-1, Iron, tris(2,4-pentanedionato)-
(catalysts, for polymerization of HCHO)
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



IT 3264-82-2, Nickel, bis(2,4-pentanedionato)- 13395-16-9, Copper, bis(2,4-pentanedionato)- 14024-17-0, Iron, bis(2,4-pentanedionato)- 14024-63-6, Zinc, bis(2,4-pentanedionato)- 14128-84-8, Copper, bis(1-phenyl-1,3-butanedionato)- 14284-06-1, Copper, bis(hydrogenacetoacetato)-, diethyl ester 17501-44-9, Zirconium, tetrakis(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO)

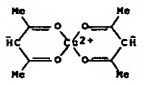
RN 3264-82-2 HCAPLUS

CN Nickel, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



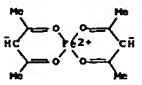
RN 13395-16-9 HCAPLUS

CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



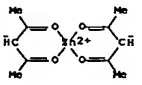
RN 14024-17-0 HCAPLUS

CN Iron, bis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



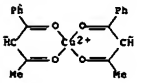
RN 14024-63-6 HCAPLUS

CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)



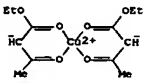
RN 14128-84-8 HCAPLUS

CN Copper, bis(1-phenyl-1,3-butanedionato-κO,κO')- (9CI) (CA INDEX NAME)



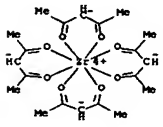
RN 14284-06-1 HCAPLUS

CN Copper, bis[ethyl 3-(oxo-κO)butanoato-κO']- (9CI) (CA INDEX NAME)



RN 17501-44-9 HCAPLUS

CN Zirconium, tetrakis(2,4-pentanedionato-κO,κO')-, (SA-8-11''11''1'1'''1'1''')- (9CI) (CA INDEX NAME)



IT 50-00-0, Formaldehyde
(polymerization of, metal complexes of β-diketones as catalysts for)

RN 50-00-0 HCAPLUS

CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

L162 ANSWER 44 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:19968 HCAPLUS Full-text
DOCUMENT NUMBER: 64:19968
ORIGINAL REFERENCE NO.: 64:3718h,3719a-c
TITLE: Formaldehyde polymers
INVENTOR(S): Sidi, Henri; Reynolds, Richard E.
PATENT ASSIGNEE(S): Hayden Newport Chemical Corp.
SOURCE: 13 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1398747		19650514	FR 1963-948197	.19630920 <--
NL 298169			NL	
PRIORITY APPLN. INFO.:			US	19620920 <--

ED Entered STN: 22 Apr 2001

AB Tough, high-mol.-weight polymers are prepared by contacting substantially anhydrous HCHO monomer with a chelate of a polyvalent metal. Thus, anhydrous HCHO monomer was prepared by adding 100 g. α-poly(oxymethylene) during 60 min. to a reactor containing an agitated solution of 2 ml. H3PO4 in 750 g. of the di-Et ether of diethylene glycol at 140-160°. The HCHO gas generated was passed through 2 traps maintained at 0 and -30°, resp. The gas was then passed into 1000 g. CH2(OAc)2 containing a solution of 0.1 g. Fe(III) acetylacetonate in 5 ml. toluene and 0.1 g. 4,4'-butylidenebis(3-methyl-6-tert-butylphenol) (I). The polymerization mixture was agitated and maintained at 21-32.5°. Following polymerization, 10 g. (AcO)2O and 0.4 g. NaOAc were added to the mixture, which was gradually warmed to reflux at 164-7° and held at this temperature for 2 hrs. The mixture was cooled to 125° at a rate of 7-

8°/hr. and then more rapidly to room temperature. The poly(oxymethylene) acetate thus obtained was filtered and washed successively with 500 ml. Me2CO, 2 500-ml. portions of H2O, 500 ml. Me2CO, and a solution of 0.1 g. I in 500 ml. Me2CO. After desiccation, 34 g. polymer having a mol. weight of 45,000 was obtained. The following polymerization initiators: acetylacetone chelates of Fe(II), Al, Mn, Co(III), Zn, Ti, Zr, Cu, and Sn(II), the dimethylglyoxime chelate of Ni, and 8-hydroxyquinoline chelates of Cu and Sn(II) can also be used. The polymers thus obtained are branched-chain poly(oxymethylene) polyacetates.

IC C08G

CC 45 (Synthetic High Polymers)

IT Polyoxymethylenes
(manufacture by HCHO polymerization, with chelates of polyvalent metals as catalysts)

IT 12148-41-3, Tin, bis(8-quinolinolato)- 13478-93-8, Nickel, bis(dimethylglyoximato)- 13478-93-8, Glyoxime, dimethyl-, nickel complex 13963-57-0, Aluminum, tris(2,4-pentanedionato)- 14024-17-0, Iron, bis(2,4-pentanedionato)- 14024-18-1, Iron, tris(2,4-pentanedionato)- 14024-63-6, Zinc, bis(2,4-pentanedionato)- 21679-46-9, Cobalt, tris(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO)

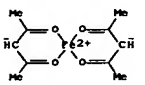
IT 50-00-0, Formaldehyde
(polymerization of, chelates of polyvalent metals as catalysts in)

IT 123-54-6, 2,4-Pentanedione
(polyoxymethylenes modified by)

IT 14024-17-0, Iron, bis(2,4-pentanedionato)- 14024-18-1, Iron, tris(2,4-pentanedionato)- 14024-63-6, Zinc, bis(2,4-pentanedionato)- 21679-46-9, Cobalt, tris(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO)

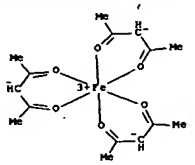
RN 14024-17-0 HCAPLUS

CN Iron, bis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)

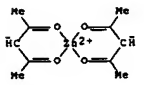


RN 14024-18-1 HCAPLUS

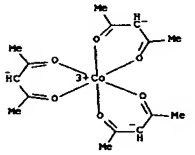
CN Iron, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



RN 14024-63-6 HCAPLUS
CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)



RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



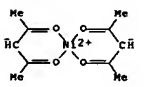
IT 50-00-0, Formaldehyde
(polymerization of, chelates of polyvalent metals as catalysts in)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

L162 ANSWER 45 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1965:463655 HCAPLUS Full-text
DOCUMENT NUMBER: 63:63655
ORIGINAL REFERENCE NO.: 63:11732e-f
TITLE: Formaldehyde copolymers
INVENTOR(S): Wolf, Calvin N.
PATENT ASSIGNEE(S): Ethyl Corp.
SOURCE: 10 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1392124		19650312	FR 1964-969834	19640406 <--
GB 1026237			GB	
PRIORITY APPLN. INFO.:			US	19630409 <--

ED Entered STN: 22 Apr 2001
AB Copolymers of HCHO and α-olefins of the type described in Fr. 1,355,103 (CA 62, 11939f) are prepared using similar techniques. Thus, a mixture of trioxane 50, acrylonitrile 6, and $BF_3.OEt_2$ 0.06 part was agitated at 90° for 40 min. under dry N. The polymeric product, after grinding to a powder, had a m.p. of 172°, a crystalline m.p. of 157°, and an inherent viscosity of 0.4 (0.5% solution in p-chlorophenol containing 2% α-pinene at 60°). The yield of copolymer was 63%. Similar copolymers were prepared with the following comonomers: Bu acrylate, methylacrolein, Me methacrylate, vinyl acetate, acrylic acid, vinyl butyrate, and vinyl chloride.
IC C08G
CC 45 (Synthetic High Polymers)
IT Polyoxymethylenes
(modified by vinyl compds.)
IT Polymerization
(of formaldehyde and trioxane, with vinyl compds.)
IT Vinyl compounds
(polymerization of, with HCHO or trioxane)
IT Acrylonitrile, polymer with HCHO
Butyric acid, polymer with HCHO
Butyric acid, polymer with trioxane
Ethylene, chloro-, polymer with HCHO
Ethylene, chloro-, polymer with trioxane
Methacrylaldehyde, polymer with HCHO
Vinyl acetate, polymer with HCHO
RL: PREP (Preparation)
IT 27056-93-5, Acrylic acid, butyl ester, polymer with vinyl propionate
(butyl ester polymerization, with HCHO or trioxane)
IT 3264-82-2, Nickel, bis(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO with vinyl compds.)
IT 79-10-7, Acrylic acid
(polymerization of (and acrylic acid derivs.), with HCHO or trioxane)

IT 78-94-4, 3-Buten-2-one 80-62-6, Methyl methacrylate
(polymerization of, with HCHO or trioxane)
IT 50-00-0, Formaldehyde 110-88-3, s-Trioxane
(polymerization of, with vinyl compds.)
IT 41232-42-2P, Vinyl acetate, polymer with trioxane 790693-42-4P, Methacrylaldehyde, polymer with trioxane
RL: PREP (Preparation)
(preparation of)
IT 3264-82-2, Nickel, bis(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO with vinyl compds.)
RN 3264-82-2 HCAPLUS
CN Nickel, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



IT 50-00-0, Formaldehyde 110-88-3, s-Trioxane
(polymerization of, with vinyl compds.)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

RN 110-88-3 HCAPLUS
CN 1,3,5-Trioxane (9CI) (CA INDEX NAME)

L162 ANSWER 46 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1965:455124 HCAPLUS Full-text
DOCUMENT NUMBER: 63:55124
ORIGINAL REFERENCE NO.: 63:10091e-g
TITLE: Formaldehyde polymers and copolymers
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: 7 pp.

DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1386644		19650122	FR 1964-961883	19640129 <--
PRIORITY APPLN. INFO.:			JP	19630129 <--

ED Entered STN: 22 Apr 2001
AB The title products are prepared by polymerization of HCHO or mixts. of HCHO and a ketene in the presence of a metal chelate catalyst. Suitable chelates are derivs. of β-diketones and aromatic aldehydes, alone or in combination with ethylenediamine or hexamethylenediamine. Thus, a gaseous mixture of 0.1 g./min. HCHO and 0.01 g./min. $CH_2:CO$ was passed into a solution of 0.01 g. Co triacetylacetonate in 400 ml. n-C7H16 under an atmospheric of N at 20-30°. When a mixture containing 30 g. HCHO had been added, the copolymer (I) was filtered, washed with MeOH and Me_2CO, and dried at 60° under reduced pressure. A 25 g. yield of I obtained in this way was compared with an HCHO homopolymer (II) produced under the same conditions. Heat stability, K222 (g./min. decomposed at 222°), inherent viscosity of a 0.5% solution in p-chlorophenol containing 2% α-pinene, m.p., and crease resistance of a 0.05 mm. film after aging for 7 days at 105° (as measured by the number of folds it would undergo without breaking) of I and II were, resp.: I, 0.5, 6.0, 163°, >1000; II, 1.0, 3.0, 168°, >1000. When I was acetylated, the resultant polymer had a K222 of 0.1 and a m.p. of 170°. Comparable homopolymers prepared by using Et_3Al and Et_2Zn as catalysts had inherent viscosities of 1.8-1.9, K222 values of 2.4-2.6, and crease resistances of 0. These polymers and copolymers have superior phys. properties even when a relatively impure monomer is employed as a raw material.
IC C08G
CC 45 (Synthetic High Polymers)
IT Polyoxymethylenes
(manufacture of)
IT Polymerization
(of formaldehyde, alone and with ketene, metal chelate catalysts in)
IT 3264-82-2, Nickel, bis(2,4-pentanedionato)- 13395-16-9, Copper, bis(2,4-pentanedionato)- 13476-99-8, Vanadium, tris(2,4-pentanedionato)- 13878-44-9, Copper, bis(2,4-hexanedionato)- 13920-07-9, Cobalt, bis[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato]- 13920-08-0, Cobalt, bis[4,4,4-trifluoro-1-(2-furyl)-1,3-butanedionato]- 13963-57-0, Aluminum, tris(2,4-pentanedionato)- 14024-61-4, Palladium, bis(2,4-pentanedionato)- 14024-63-6, Zinc, bis(2,4-pentanedionato)- 14024-64-7, Titanium, oxobis(2,4-pentanedionato)- 14128-84-6, Copper, bis(1-phenyl-1,3-butanedionato)- 14167-15-8, Copper, [α,α'-(ethylenedinitrilo)di-o-cresolato(2-)]- 14167-22-7, Zinc, [α,α'-(ethylenedinitrilo)di-o-cresolato(2-)]- 14220-65-6, Cobalt, bis(salicylaldehydato)- 14325-56-5, Aluminum, tris(salicylaldehydato)- 14552-23-9, Copper, [α,α'-(hexamethylenedinitrilo)di-o-cresolato(2-)]- 14651-99-1, Cobalt, [α,α'-(hexamethylenedinitrilo)di-o-cresolato(2-)]- 14652-93-8, Titanium, tris(salicylaldehydato)- 14695-06-8, Chromium, tris(salicylaldehydato)- 14710-63-5, Copper, bis(o-formimidoylphenolato)- 14780-88-2, Cadmium, bis(salicylaldehydato)- 14843-29-9, Vanadium, tris(salicylaldehydato)- 14880-85-4, Cadmium, [α,α'-

(ethylenedinitrilo)di-o-cresolato(2-)]- 15170-57-7, Platinum, bis(2,4-pentanedionato)- 15246-70-5, Manganese, bis(salicylaldehydato)- 17524-05-9, Molybdenum, dioxobis(2,4-pentanedionato)- 21679-31-2, Chromium, tris(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO)

IT 14284-89-0, Manganese, tris(2,4-pentanedionato)- 21679-46-9, Cobalt, tris(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO, alone or with ketene)

IT 14024-18-1, Iron, tris(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO, with ketene)

IT 3002-24-2, 2,4-Hexanedione
(complexes with Co and Cu, catalysts, in polymerization of formaldehyde)

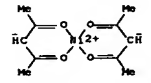
IT 94-93-9, o-Cresol, α,α'-(ethylenedinitrilo)di-
(metal complexes, catalysts, in polymerization of formaldehyde)

IT 50-00-0, Formaldehyde
(polymerization of, alone and with ketene, metal chelates as catalysts in)

IT 3264-82-2, Nickel, bis(2,4-pentanedionato)- 13395-16-9, Copper, bis(2,4-pentanedionato)- 13476-99-8, Vanadium, tris(2,4-pentanedionato)- 13878-44-9, Copper, bis(2,4-hexanedionato)- 13928-07-9, Cobalt, bis[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato]- 13928-08-0, Cobalt, bis[4,4,4-trifluoro-1-(2-furyl)-1,3-butanedionato]- 14024-61-4, Palladium, bis(2,4-pentanedionato)- 14024-63-6, Zinc, bis(2,4-pentanedionato)- 14024-64-7, Titanium, oxobis(2,4-pentanedionato)- 14128-84-8, Copper, bis(1-phenyl-1,3-butanedionato)- 14220-65-6, Cobalt, bis(salicylaldehydato)- 14652-93-8, Titanium, tris(salicylaldehydato)- 14695-06-8, Chromium, tris(salicylaldehydato)- 14780-88-2, Cadmium, bis(salicylaldehydato)- 14843-29-9, Vanadium, tris(salicylaldehydato)- 15170-57-7, Platinum, bis(2,4-pentanedionato)- 15246-70-5, Manganese, bis(salicylaldehydato)- 17524-05-9, Molybdenum, dioxobis(2,4-pentanedionato)- 21679-31-2, Chromium, tris(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO)

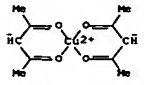
RN 3264-82-2 HCAPLUS

CN Nickel, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



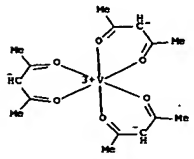
RN 13395-16-9 HCAPLUS

CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



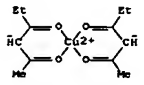
RN 13476-99-8 HCAPLUS

CN Vanadium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI) (CA INDEX NAME)



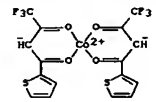
RN 13878-44-9 HCAPLUS

CN Copper, bis(2,4-hexanedionato-κO,κO')- (9CI) (CA INDEX NAME)



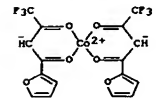
RN 13928-07-9 HCAPLUS

CN Cobalt, bis[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato-κO,κO']- (9CI) (CA INDEX NAME)



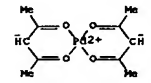
RN 13928-08-0 HCAPLUS

CN Cobalt, bis[4,4,4-trifluoro-1-(2-furanyl)-1,3-butanedionato]- (9CI) (CA INDEX NAME)



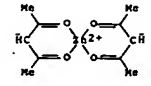
RN 14024-61-4 HCAPLUS

CN Palladium, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



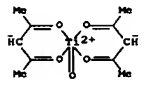
RN 14024-63-6 HCAPLUS

CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)



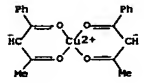
RN 14024-64-7 HCAPLUS

CN Titanium, oxobis(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



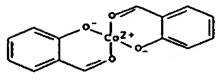
RN 14128-84-8 HCAPLUS

CN Copper, bis(1-phenyl-1,3-butanedionato-κO,κO')- (9CI) (CA INDEX NAME)



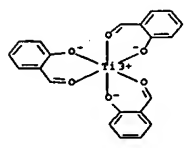
RN 14220-65-6 HCAPLUS

CN Cobalt, bis[2-(hydroxy-κO)benzaldehydato-κO]-, (T-4)- (9CI) (CA INDEX NAME)

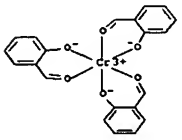


RN 14652-93-8 HCAPLUS

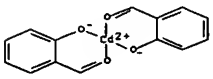
CN Titanium, tris(2-hydroxybenzaldehydato-O,O')- (9CI) (CA INDEX NAME)



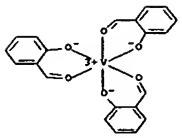
RN 14695-06-8 HCAPLUS
CN Chromium, tris(2-hydroxybenzaldehydato-O,O')- (9CI) (CA INDEX NAME)



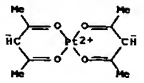
RN 14780-88-2 HCAPLUS
CN Cadmium, bis(2-hydroxybenzaldehydato-O,O')-, (T-4)- (9CI) (CA INDEX NAME)



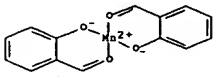
RN 14843-29-9 HCAPLUS
CN Vanadium, tris(2-hydroxybenzaldehydato-O,O')- (9CI) (CA INDEX NAME)



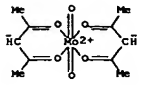
RN 15170-57-7 HCAPLUS
CN Platinum, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI)
(CA INDEX NAME)



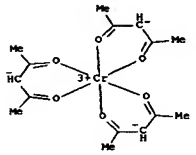
RN 15246-70-5 HCAPLUS
CN Manganese, bis[2-(hydroxy-κO)benzaldehydato-κO]- (9CI) (CA
INDEX NAME)



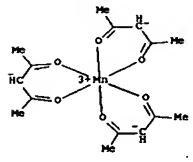
RN 17524-05-9 HCAPLUS
CN Molybdenum, dioxobis(2,4-pentanedionato-κO,κO')-, (OC-6-21)-
(9CI) (CA INDEX NAME)



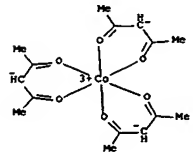
RN 21679-31-2 HCAPLUS
CN Chromium, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI)
(CA INDEX NAME)



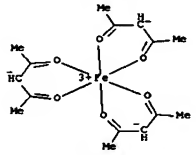
IT 14284-89-0, Manganese, tris(2,4-pentanedionato)-
21679-46-9, Cobalt, tris(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO, alone or
with ketene)
RN 14284-89-0 HCAPLUS
CN Manganese, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI)
(CA INDEX NAME)



RN 21679-46-9 HCAPLUS
CN Cobalt, tris(2,4-pentanedionato-κO,κO')-, (OC-6-11)- (9CI)
(CA INDEX NAME)



IT 14024-18-1, Iron, tris(2,4-pentanedionato)-
(catalysts, in polymerization of HCHO, with ketene)
RN 14024-18-1 HCAPLUS
CN Iron, tris(2,4-pentanedionato-κO,κO')-; (OC-6-11)- (9CI) (CA
INDEX NAME)



IT 50-00-0, Formaldehyde
(polymerization of, alone and with ketene, metal chelates as
catalysts in)
RN 50-00-0 HCAPLUS
CN Formaldehyde (8CI, 9CI) (CA INDEX NAME)

L162 ANSWER 47 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1967:55823 HCAPLUS Full-text
DOCUMENT NUMBER: 66:55823
TITLE: Polymerization of trioxane and formaldehyde by metal acetylacetonates
AUTHOR(S): Kennedy, Carl D.; Sorenson, Wayne R.; McClaflin, Gifford G.
CORPORATE SOURCE: Petrochem. Res. Div., Continental Oil Co., Ponca City, OK, USA
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1965), 6(2), 667-73
CODEN: ACPPAY; ISSN: 0032-3934
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB The catalysis of trioxane polymerization by Mo dioxydiacetylacetonate [MoO2(acac)2] was described. MoO2(acac)2 polymerizes trioxane both in the melt and in solution The effect of reaction parameters, such as catalyst concentration and trioxane-solvent ratio, on the reaction was discussed. The mechanism by which MoO2(acac)2 polymerizes trioxane appears more closely to resemble olefin polymerization by a coordination mechanism than any recognized cationic route. MoO2(acac)2 also polymerizes HCHO to high-mol.-weight poly(oxymethylene). Several other metal acetylacetonates also polymerize HCHO, but not trioxane.
CC 35 (Synthetic High Polymers)
ST FORMALDEHYDES POLYMN ACETYLACETONATES; MOLYBDENUM FORMALDEHYDES POLYMN; TRIOXANE POLYMN ACETYLACETONATES; ACETYLACETONATES POLYMN FORMALDEHYDES ; POLYMN FORMALDEHYDES ACETYLACETONATES
IT 123-54-6D, 2,4-Pentanedione, molybdenum complex
RL: CAT (Catalyst use); USES (Uses)

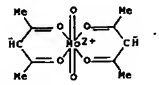
(catalysts, for polymerization of formaldehyde and s-trioxane)

IT 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of s-trioxane)

IT 17524-05-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of s-trioxane)

RN 17524-05-9 HCAPLUS

CN Molybdenum, dioxobis(2,4-pentanedionato-κO,κO')-, (OC-6-21)-(9CI) (CA INDEX NAME)



L162 ANSWER 48 OF 71 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1967:411961 HCAPLUS Full-text
DOCUMENT NUMBER: 67:11961
TITLE: High-molecular-weight poly(oxymethylene)
INVENTOR(S): Sugiura, Shotaro; Ishii, Takami
PATENT ASSIGNEE(S): Ube Industries, Ltd.
SOURCE: Jpn. Tokkyo Koho, 2 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 42000958	B4	19630118	JP	19630517 <--

ED Entered STN: 12 May 1984

AB The title compound is obtained by polymerizing anhydrous purified HCHO in the presence of metal chelate compds. of β-diketones of the general formula I, where M is a metal of Group I, II, or III of the Periodic Table, R1, R2, and R3 are H, C1-10 alkyl, aryl, cycloalkyl, alkaryl, alkoxy, thienyl, furyl, silyl, or halogen, and n is 1-4. Thus, 10 g. anhydrous purified HCHO was added at 0.1 g./min. to 400 cc. anhydrous n-heptane containing 0.06 g. cupric acetylacetonate at 25°, the precipitate filtered, washed with MeOH, and dried in vacuo at 60° for 3 hrs. to give 10 g. white polymer, [η] = 4.3.

IC C118.1
CC 35 (Synthetic High Polymers)
ST FORMALDEHYDE POLYMN; POLYOXYMETHYLENES CU CHELATES; ACETYLACETONE COPPER CHELATES; POLYMN CATALYSTS DIKETONES CHELATES; CHELATES DIKETONES POLYMN CATALYSTS; DIKETONES CHELATES POLYMN CATALYSTS; COPPER CHELATES ACETYLACETONE; CATALYSTS POLYMN DIKETONES CHELATES

IT Polyoxymethylenes, preparation
RL: PREP (Preparation)

(catalysts for, metal chelates as)

IT Polymerization catalysts
(metal chelates as, for formaldehyde)

IT 141-97-9D, Acetoacetic acid, ethyl ester, copper complexes
RL: USES (Uses)
(catalysts for polymerization of formaldehyde)

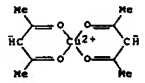
IT 13395-16-9 13963-57-0 14024-63-6 14128-84-8 14284-06-1
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)

IT 123-54-6D, 2,4-Pentanedione, complexes with aluminum
RL: USES (Uses)
(copper and zinc, catalysts, for polymerization of formaldehyde)

IT 13395-16-9 14024-63-6 14128-84-8 14284-06-1
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of formaldehyde)

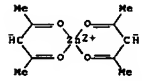
RN 13395-16-9 HCAPLUS

CN Copper, bis(2,4-pentanedionato-κO,κO')-, (SP-4-1)- (9CI) (CA INDEX NAME)



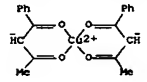
RN 14024-63-6 HCAPLUS

CN Zinc, bis(2,4-pentanedionato-κO,κO')-, (T-4)- (9CI) (CA INDEX NAME)



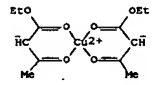
RN 14128-84-8 HCAPLUS

CN Copper, bis(1-phenyl-1,3-butanedionato-κO,κO')- (9CI) (CA INDEX NAME)



RN 14284-06-1 HCAPLUS

CN Copper, bis[ethyl 3-(oxo-κO)butanoato-κO']- (9CI) (CA INDEX NAME)



=> d ibib ab hitstr 49-58
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' - CONTINUE?
(Y)/N:y

L162 ANSWER 49 OF 71 USPATFULL on STN DUPLICATE 1
ACCESSION NUMBER: 2005:172006 USPATFULL Full-text
TITLE: Production of polyoxymethylene and suitable (II) catalysts
INVENTOR(S): Goertz, Hans-Helmut, Freinsheim, GERMANY, FEDERAL REPUBLIC OF
Luinstra, Gerrit, Mannheim, GERMANY, FEDERAL REPUBLIC OF
Wielandt, Wolfram, Tubingen, GERMANY, FEDERAL REPUBLIC OF
Henes, Michael, Jettenburg, GERMANY, FEDERAL REPUBLIC OF
Lindner, Ekkehard, Tubingen, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2005148755	A1	20050707	
	US 7064177	B2	20060620	
APPLICATION INFO.:	US 2003-510477	A1	20030410	(10)
	WO 2003-EP3745		20030410	

	NUMBER	DATE	
PRIORITY INFORMATION:	DE 2002-10215973	20020411	<--

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: NOVAK DRUCE DELUCA & QUIGG, LLP, 1300 EYE STREET NW, SUITE 400 EAST, WASHINGTON, DC, 20005, US
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
LINE COUNT: 711
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process is described for preparing polyoxymethylene by contacting a formaldehyde source with a catalyst of the formula I [Cp.sub.vML.sub.w].sup.m+Z.sub.m/n.sup.n- (I) where M is Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W, Mn, Re, Fe, Ru, Os, Co, Rh or Ir,

Cp is a cyclopentadienyl ligand C.sub.5H.sub.(5-u)R.sup.1.sub.u, where u is from 0 to 5 and
R.sup.1 is alkyl, alkenyl, aryl, heteroaryl, aralkyl, COOR.sup.2, COR.sup.2, CN or NO.sub.2, and
R.sup.2 is H, alkyl, aryl or aralkyl, v is 1 or 2, each L is independently a nitrile, CO or a ligand displaceable by CO, w is an integer from 0 to 4, Z is an anion, and m and n are each independently an integer from 1 to 3.

IT 7439-88-5D, Iridium, cyclopentadienyl-containing complexes
7439-89-6D, Iron, cyclopentadienyl-containing complexes
7439-96-5D, Manganese, cyclopentadienyl-containing complexes
7439-98-7D, Molybdenum, cyclopentadienyl-containing complexes
7440-15-5D, Rhenium, cyclopentadienyl-containing complexes
7440-16-6D, Rhodium, cyclopentadienyl-containing complexes
7440-18-8D, Ruthenium, cyclopentadienyl-containing complexes
7440-32-6D, Titanium, cyclopentadienyl-containing complexes
7440-33-7D, Tungsten, cyclopentadienyl-containing complexes
7440-47-3D, Chromium, cyclopentadienyl-containing complexes
7440-48-4D, Cobalt, cyclopentadienyl-containing complexes
7440-58-6D, Hafnium, cyclopentadienyl-containing complexes
7440-62-2D, Vanadium, cyclopentadienyl-containing complexes
7440-67-7D, Zirconium, cyclopentadienyl-containing complexes
(cyclopentadienyl-containing catalysts for production of polyoxymethylene)

RN 7439-88-5 USPATFULL

CN Iridium (CA INDEX NAME)

Ir

RN 7439-89-6 USPATFULL

CN Iron (CA INDEX NAME)

Fe

RN 7439-96-5 USPATFULL

CN Manganese (CA INDEX NAME)

Mn

RN 7439-98-7 USPATFULL
CN Molybdenum (CA INDEX NAME)

Mo

RN 7440-15-5 USPATFULL
CN Rhenium (CA INDEX NAME)

Re

RN 7440-16-6 USPATFULL
CN Rhodium (CA INDEX NAME)

Rh

RN 7440-18-8 USPATFULL
CN Ruthenium (CA INDEX NAME)

Ru

RN 7440-32-6 USPATFULL
CN Titanium (CA INDEX NAME)

Ti

RN 7440-33-7 USPATFULL
CN Tungsten (CA INDEX NAME)

W

RN 7440-47-3 USPATFULL
CN Chromium (CA INDEX NAME)

Cr

RN 7440-48-4 USPATFULL
CN Cobalt (CA INDEX NAME)

Co

RN 7440-58-6 USPATFULL
CN Hafnium (CA INDEX NAME)

Hf

RN 7440-62-2 USPATFULL
CN Vanadium (CA INDEX NAME)

V

RN 7440-67-7 USPATFULL
CN Zirconium (CA INDEX NAME)

Zr

IT 9002-81-7P, Trioxane homopolymer 25214-85-1P,
1,3-Dioxepane-trioxane copolymer 30525-89-4P, Paraformaldehyde
(production of polyoxymethylene in presence of cyclopentadienyl-containing
catalysts)
RN 9002-81-7 USPATFULL
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)

RN 25214-85-1 USPATFULL
CN 1,3-Dioxepane, polymer with 1,3,5-trioxane (9CI) (CA INDEX NAME)

CM 1

CRN 505-65-7
CMF C5 H10 O2

CM 2

CRN 110-88-3
CMF C3 H6 O3

RN 30525-89-4 USPATFULL
CN Paraformaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 50-00-0
CMF C H2 O

L162 ANSWER 50 OF 71 USPATFULL on STN DUPLICATE 2
ACCESSION NUMBER: 2003:226612 USPATFULL Full-text
TITLE: Methylenelactone synthesis in supercritical fluids
INVENTOR(S): Manzer, Leo E., Wilmington, DE, UNITED STATES
Hutchenson, Keith W., Lincoln University, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003158425	A1	20030821
	US 6649776	B2	20031118
APPLICATION INFO.:	US 2003-337542	A1	20030107 (10)

NUMBER DATE

PRIORITY INFORMATION: US 2002-346361P 20020107 (60) <--
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT RECORDS CENTER, BARLEY MILL PLAZA 25/1128, 4417 LANCASTER PIKE, WILMINGTON, DE, 19805
NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: 1
LINE COUNT: 568
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Alpha-methylenelactones are produced from butyrolactone and valerolactone by the addition of formaldehyde in a supercritical fluid in the presence of a catalyst and a phase transfer agent.
IT 7439-89-6, Iron, uses 7440-15-5, Rhenium, uses 7440-33-7, Tungsten, uses 7440-47-3, Chromium, uses
(cocatalyst; in methylenation catalyst systems for the preparation of α-methylenelactones from formaldehydes and lactones in supercrit. fluids)
RN 7439-89-6 USPATFULL
CN Iron (CA INDEX NAME)

Fe

RN 7440-15-5 USPATFULL
CN Rhenium (CA INDEX NAME)

Re

RN 7440-33-7 USPATFULL
CN Tungsten (CA INDEX NAME)

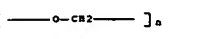
W

RN 7440-47-3 USPATFULL
CN Chromium (CA INDEX NAME)

Cr

IT 9002-81-7, Formaldehyde homopolymer 30525-89-4,
Paraformaldehyde
(methylenation process and catalyst systems for the preparation of α-methylenelactones from formaldehydes and lactones in supercrit.

fluids)
RN 9002-81-7 USPATFULL
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



RN 30525-89-4 USPATFULL
CN Paraformaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 50-00-0
CMF C H2 O

L162 ANSWER 51 OF 71 USPATFULL on STN
ACCESSION NUMBER: 2006:36906 USPATFULL Full-text
TITLE: Thermal control interface coatings and pigments
INVENTOR(S): Coombs, Paul G., Santa Rosa, CA, UNITED STATES
Markantes, Charles T., Santa Rosa, CA, UNITED STATES
Phillips, Roger W., Santa Rosa, CA, UNITED STATES
PATENT ASSIGNEE(S): JDS Uniphase Corporation, San Jose, CA, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6997981	B1	20060214	
APPLICATION INFO.:	US 2002-152593		20020520 (10)	<--

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Lorengo, J. A.
ASSISTANT EXAMINER: Manlove, S. S.
LEGAL REPRESENTATIVE: Allen, Dyer, Doppelt, Milbrath & Gilchrist, P.A.
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 26 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 1322
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides an optical structure with low chroma and brightness in the visible region and low emissivity in the infrared region. The optical structure includes an interference structure having an infrared reflective layer and an infrared absorbing thin film layer. These layers are in turn separated by a thin film spacer of a dielectric or semiconductor material. The reflectivity and transmission of the layers are selectively controlled through the thickness of the layers such that the visual reflectivity and color is independent of the infrared properties of the absorber and reflector layers.
IT 7439-89-6, Iron, uses 7439-98-7, Molybdenum, uses 7440-02-0, Nickel, uses 7440-32-6, Titanium, uses

7440-33-7, Tungsten, uses 7440-47-3, Chromium, uses
(absorber layer; thermal control interface coatings and pigments for optical interference structure)
RN 7439-89-6 USPATFULL
CN Iron (CA INDEX NAME)

RN 7439-98-7 USPATFULL
CN Molybdenum (CA INDEX NAME)

RN 7440-02-0 USPATFULL
CN Nickel (CA INDEX NAME)

RN 7440-32-6 USPATFULL
CN Titanium (CA INDEX NAME)

RN 7440-33-7 USPATFULL
CN Tungsten (CA INDEX NAME)

RN 7440-47-3 USPATFULL
CN Chromium (CA INDEX NAME)

IT 9002-81-7, Formaldehyde polymer
(optical structure base; thermal control interface coatings and

pigments for optical interference structure)
RN 9002-81-7 USPATFULL
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)

IT 7439-88-5, Iridium, uses 7440-05-3, Palladium, uses 7440-06-4, Platinum, uses 7440-15-5, Rhenium, uses 7440-31-5, Tin, uses 7440-48-4, Cobalt, uses 7440-50-8, Copper, uses
(reflector layer; thermal control interface coatings and pigments for optical interference structure)
RN 7439-88-5 USPATFULL
CN Iridium (CA INDEX NAME)

RN 7440-05-3 USPATFULL
CN Palladium (CA INDEX NAME)

RN 7440-06-4 USPATFULL
CN Platinum (CA INDEX NAME)

RN 7440-15-5 USPATFULL
CN Rhenium (CA INDEX NAME)

RN 7440-31-5 USPATFULL
CN Tin (CA INDEX NAME)

RN 7440-48-4 USPATFULL
CN Cobalt (CA INDEX NAME)

RN 7440-50-8 USPATFULL
CN Copper (CA INDEX NAME)

L162 ANSWER 52 OF 71 USPATFULL on STN
ACCESSION NUMBER: 2005:293441 USPATFULL Full-text
TITLE: Production of polyoxymethylene and suitable(III) catalysts
INVENTOR(S): Luinstra, Gerrit, Mannheim, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2005255990	A1	20051117	
APPLICATION INFO.:	US 2003-510476	A1	20030410 (10)	
	WO 2003-EP3744		20030410	
			20041007 PCT 371 date	

	NUMBER	DATE	
PRIORITY INFORMATION:	DE 2002-10215976	20020411	<--

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: NOVAK DRUCE DELUCA & QUIGG, LLP, 1300 EYE STREET NW, SUITE 400 EAST, WASHINGTON, DC, 20005, US
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
LINE COUNT: 560
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A process is described for preparing polyoxymethylene by contacting a formaldehyde source with a catalyst of the formula I ##STR1## where M is TiO, ZrO, HfO, VO, CrO.sub.2, MoO.sub.2, WO.sub.2, MnO.sub.2, ReO.sub.2, Fe, Ru, Co, Rh, Ir, Ni, Pd, Pt, Cu, Zn, Cd, Hg, Sn, SnO or PbO; R.sup.1, R.sup.2 and R.sup.3 are independently a radical which is selected from H, alkyl, aryl and aralkyl and the radical may be partly or fully halogenated; Z is an anion; and n is 1 or 2.
IT 7439-88-5D, Iridium, 1,3-diketonate complexes 7439-89-6D, Iron, 1,3-diketonate complexes 7439-92-1D, Lead, 1,3-diketonate complexes 7439-96-5D, Manganese, 1,3-diketonate complexes 7439-97-6D, Mercury, 1,3-diketonate complexes 7439-98-7D, Molybdenum, 1,3-diketonate complexes 7440-02-0D, Nickel, 1,3-diketonate complexes 7440-05-3D

, Palladium, 1,3-diketonate complexes 7440-06-4D, Platinum, 1,3-diketonate complexes 7440-15-5D, Rhenium, 1,3-diketonate complexes 7440-16-6D, Rhodium, 1,3-diketonate complexes 7440-18-8D, Ruthenium, 1,3-diketonate complexes 7440-31-5D, Tin, 1,3-diketonate complexes 7440-32-6D, Titanium, 1,3-diketonate complexes 7440-33-7D, Tungsten, 1,3-diketonate complexes 7440-43-9D, Cadmium, 1,3-diketonate complexes 7440-47-3D, Chromium, 1,3-diketonate complexes 7440-48-4D, Cobalt, 1,3-diketonate complexes 7440-50-8D , Copper, 1,3-diketonate complexes 7440-58-6D, Hafnium, 1,3-diketonate complexes 7440-62-2D, Vanadium, 1,3-diketonate complexes 7440-66-6D, Zinc, 1,3-diketonate complexes 7440-67-7D, Zirconium, 1,3-diketonate complexes (diketonate metal complexes used as catalysts for production of polyoxymethylene)

RN 7439-88-5 USPATFULL
CN Iridium (CA INDEX NAME)

Ir

RN 7439-89-6 USPATFULL
CN Iron (CA INDEX NAME)

Fe

RN 7439-92-1 USPATFULL
CN Lead (CA INDEX NAME)

Pb

RN 7439-96-5 USPATFULL
CN Manganese (CA INDEX NAME)

Mn

RN 7439-97-6 USPATFULL
CN Mercury (CA INDEX NAME)

Hg

RN 7439-98-7 USPATFULL
CN Molybdenum (CA INDEX NAME)

Mo

RN 7440-02-0 USPATFULL
CN Nickel (CA INDEX NAME)

Ni

RN 7440-05-3 USPATFULL
CN Palladium (CA INDEX NAME)

Pd

RN 7440-06-4 USPATFULL
CN Platinum (CA INDEX NAME)

Pt

RN 7440-15-5 USPATFULL
CN Rhenium (CA INDEX NAME)

Re

RN 7440-16-6 USPATFULL
CN Rhodium (CA INDEX NAME)

Rh

RN 7440-18-8 USPATFULL
CN Ruthenium (CA INDEX NAME)

Ru

RN 7440-31-5 USPATFULL
CN Tin (CA INDEX NAME)

Sn

RN 7440-32-6 USPATFULL
CN Titanium (CA INDEX NAME)

Ti

RN 7440-33-7 USPATFULL
CN Tungsten (CA INDEX NAME)

W

RN 7440-43-9 USPATFULL
CN Cadmium (CA INDEX NAME)

Cd

RN 7440-47-3 USPATFULL
CN Chromium (CA INDEX NAME)

Cr

RN 7440-48-4 USPATFULL
CN Cobalt (CA INDEX NAME)

Co

RN 7440-50-8 USPATFULL
CN Copper (CA INDEX NAME)

Cu

RN 7440-58-6 USPATFULL
CN Hafnium (CA INDEX NAME)

Hf

RN 7440-62-2 USPATFULL
CN Vanadium (CA INDEX NAME)

V

RN 7440-66-6 USPATFULL
CN Zinc (CA INDEX NAME)

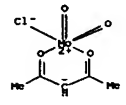
Zn

RN 7440-67-7 USPATFULL
CN Zirconium (CA INDEX NAME)

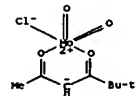
Zr

IT 611179-99-8P 611180-00-8P 611180-01-9P 611180-02-0P 611180-03-1P 611180-04-2P 611180-05-3P 611180-06-4P 611180-07-5P 611180-08-6P 611180-09-7P 611180-10-0P 611180-11-1P 611180-12-2P 611180-13-3P 611180-14-4P
(diketonate metal complexes used as catalysts for production of polyoxymethylene)

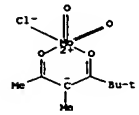
RN 611179-99-8 USPATFULL
CN Molybdenum, chlorodioxo(2,4-pentanedionato-κO,κO')- (9CI) (CA INDEX NAME)



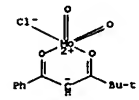
RN 611180-00-8 USPATFULL
CN Molybdenum, chloro(5,5-dimethyl-2,4-hexanedionato-κO,κO')dioxo-
(9CI) (CA INDEX NAME)



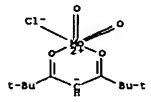
RN 611180-01-9 USPATFULL
CN Molybdenum, chlorodioxo(3,5,5-trimethyl-2,4-hexanedionato-
κO,κO')- (9CI) (CA INDEX NAME)



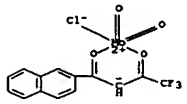
RN 611180-02-0 USPATFULL
CN Molybdenum, chloro(4,4-dimethyl-1-phenyl-1,3-pentanedionato-
κO,κO')dioxo- (9CI) (CA INDEX NAME)



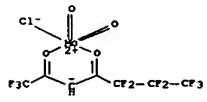
RN 611180-03-1 USPATFULL
CN Molybdenum, chlorodioxo(2,2,6,6-tetramethyl-3,5-heptanedionato-
κO,κO')- (9CI) (CA INDEX NAME)



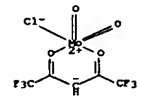
RN 611180-04-2 USPATFULL
CN Molybdenum, chlorodioxo[4,4,4-trifluoro-1-(2-naphthalenyl)-1,3-
butanedionato-κO,κO']- (9CI) (CA INDEX NAME)



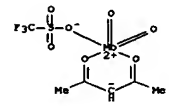
RN 611180-05-3 USPATFULL
CN Molybdenum, chloro(1,1,1,5,5,6,6,7,7,7-decafluoro-2,4-heptanedionato-
κO,κO')dioxo- (9CI) (CA INDEX NAME)



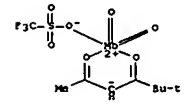
RN 611180-06-4 USPATFULL
CN Molybdenum, chloro(1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-
κO,κO')dioxo- (9CI) (CA INDEX NAME)



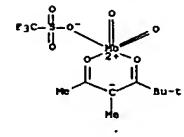
RN 611180-07-5 USPATFULL
CN Molybdenum, dioxo(2,4-pentanedionato-κO,κO')(trifluoromethanes
ulfonato-κO)- (9CI) (CA INDEX NAME)



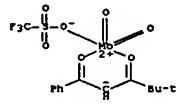
RN 611180-08-6 USPATFULL
CN Molybdenum, (5,5-dimethyl-2,4-hexanedionato-κO,κO')dioxo(trifl
uoromethanesulfonato-κO)- (9CI) (CA INDEX NAME)



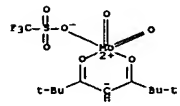
RN 611180-09-7 USPATFULL
CN Molybdenum, dioxo(trifluoromethanesulfonato-κO)(3,5,5-trimethyl-2,4-
hexanedionato-κO,κO')- (9CI) (CA INDEX NAME)



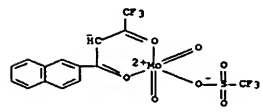
RN 611180-10-0 USPATFULL
CN Molybdenum, (4,4-dimethyl-1-phenyl-1,3-pentanedionato-
κO,κO')dioxo(trifluoromethanesulfonato-κO)- (9CI) (CA
INDEX NAME)



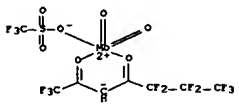
RN 611180-11-1 USPATFULL
CN Molybdenum, dioxo(2,2,6,6-tetramethyl-3,5-heptanedionato-
κO,κO')(trifluoromethanesulfonato-κO)- (9CI) (CA
INDEX NAME)



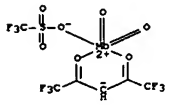
RN 611180-12-2 USPATFULL
CN Molybdenum, dioxo(trifluoromethanesulfonato-κO)[4,4,4-trifluoro-1-(2-
naphthalenyl)-1,3-butanedionato-κO,κO']- (9CI) (CA INDEX
NAME)



RN 611180-13-3 USPATFULL
CN Molybdenum, (1,1,1,5,5,6,6,7,7,7-decafluoro-2,4-heptanedionato-
κO,κO')dioxo(trifluoromethanesulfonato-κO)- (9CI) (CA
INDEX NAME)



RN 611180-14-4 USPATFULL
CN Molybdenum, (1,1,1,5,5,5-hexafluoro-2,4-pentanedionato-κO,κO')dioxo(trifluoromethanesulfonato-κO)- (9CI) (CA INDEX NAME)



IT 13637-68-8, Molybdenum dioxodichloride
(diketonate metal complexes used as catalysts for production of polyoxymethylene)
RN 13637-68-8 USPATFULL
CN Molybdenum chloride oxide (MoCl2O2), (T-4)- (9CI) (CA INDEX NAME)

IT 9002-81-7P, Poly(oxymethylene) 25214-85-1P, 1,3-Dioxepane-trioxane copolymer 30525-89-4P, Paraformaldehyde
(production of polyoxymethylene in presence of diketonate metal complexes)
RN 9002-81-7 USPATFULL
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)

RN 25214-85-1 USPATFULL
CN 1,3-Dioxepane, polymer with 1,3,5-trioxane (9CI) (CA INDEX NAME)

CM 1

CRN 505-65-7
CMF C5 H10 O2

CM 2

CRN 110-88-3
CMF C3 H6 O3

RN 30525-89-4 USPATFULL
CN Paraformaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 50-00-0
CMF C H2 O

L162 ANSWER 53 OF 71 USPATFULL on STN

ACCESSION NUMBER:	2004:335549 USPATFULL Full-text
TITLE:	Support-fixed bleaching catalyst complex compounds suitable as catalysts for peroxygen compounds
INVENTOR(S):	Gentschev, Pavel, Dusseldorf, GERMANY, FEDERAL REPUBLIC OF Doring, Steve, Dusseldorf, GERMANY, FEDERAL REPUBLIC OF Breyer, Jacques, Heusden-Destelbergen, BELGIUM Machin, Antonio, Barcelona, SPAIN

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004266641	A1	20041230
APPLICATION INFO.:	US 2004-873071	A1	20040621 (10)

RELATED APPLN. INFO.:	Continuation of Ser. No. WO 2002-EP14290, filed on 16 Dec 2002, UNKNOWN

	NUMBER	DATE	
PRIORITY INFORMATION:	DE 2001-10163331	20011221	<--

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE, 46TH FLOOR, PHILADELPHIA, PA, 19103
NUMBER OF CLAIMS:	26
EXEMPLARY CLAIM:	1
LINE COUNT:	3673

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to support-fixed bleaching catalyst(s) suitable or the catalysis of peroxide compounds, characterized in that the support-fixed bleaching catalyst(s) is/are covalently bonded to a support by means of at least one organic ligand of the bleaching catalyst. The bleaching catalyst(s) form(s) a complex with at least on transition metal. The invention further relates to support-fixed bleaching catalysts for the catalysis of peroxide compounds, where at least one ligand, covalently bonded to a support, is a transition-metal-free ligand, which chelates with transition metal, derived from another source, preferably from the bleaching composition and/or added water and thus forms the complex with a transition metal.

IT 7439-98-7DP, Molybdenum, complexes with reaction products of polymers and amine ligands 7440-18-8DP, Ruthenium, complexes with reaction products of polymers and amine ligands 7440-32-6DP, Titanium, complexes with reaction products of polymers and amine ligands 7440-48-4DP, Cobalt, complexes with reaction products of polymers and amine ligands 7440-50-8DP, Copper, complexes with reaction products of polymers and amine ligands 7440-62-2DP, Vanadium, complexes with reaction products of polymers and amine ligands 9002-81-7DP, Polyformaldehyde, reaction products with amines, transition metal complexes
(polymer-supported transition metal complexes as catalysts for peroxide bleaching agents)
RN 7439-98-7 USPATFULL
CN Molybdenum (CA INDEX NAME)

RN 7440-18-8 USPATFULL
CN Ruthenium (CA INDEX NAME)

RN 7440-32-6 USPATFULL
CN Titanium (CA INDEX NAME)

RN 7440-48-4 USPATFULL
CN Cobalt (CA INDEX NAME)

RN 7440-50-8 USPATFULL
CN Copper (CA INDEX NAME)

RN 7440-62-2 USPATFULL
CN Vanadium (CA INDEX NAME)

RN 9002-81-7 USPATFULL
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)

L162 ANSWER 54 OF 71 USPATFULL on STN

ACCESSION NUMBER:	2004:151018 USPATFULL Full-text
TITLE:	Engineering of material surfaces
INVENTOR(S):	Shastri, Venkatram P., Lower Gwynedd, PA, UNITED STATES Chen, I-Wei, Swartmore, PA, UNITED STATES Choi, Hoon, Bryn Mawr, PA, UNITED STATES Lipski, Anna Marie, Philadelphia, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004115239	A1	20040617
APPLICATION INFO.:	US 2003-668484	A1	20030922 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2003-427242, filed on 1 May 2003, PENDING		

NUMBER DATE

PRIORITY INFORMATION:	US 2002-411871P	20020920 (60) <--
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	CAESAR, RIVISE, BERNSTEIN,, COHEN & POKOTILOW, LTD., 12TH FLOOR, SEVEN PENN CENTER, 1635 MARKET STREET, PHILADELPHIA, PA, 19103-2212	
NUMBER OF CLAIMS:	52	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	8 Drawing Page(s)	
LINE COUNT:	1345	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides a device having a surface and a functional layer associated with the surface, where the functional layer includes particles having a structure substituted with a functional group, where the functional group is adapted to modify a property of the device, the device is sufficiently biocompatible for application to a multicellular organism and the particles have an average diameter of about 5 nm to about 10 microns.

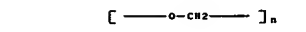
IT 7440-02-0, Nickel, biological studies 7440-32-6, Titanium, biological studies 7440-48-4, Cobalt, biological studies 9002-81-7, Poly(oxymethylene)
(medical device having surface and functional layer associated with the surface)

RN 7440-02-0 USPATFULL
CN Nickel (CA INDEX NAME)

RN 7440-32-6 USPATFULL
CN Titanium (CA INDEX NAME)

RN 7440-48-4 USPATFULL
CN Cobalt (CA INDEX NAME)

RN 9002-81-7 USPATFULL
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



L162 ANSWER 55 OF 71 USPATFULL on STN

ACCESSION NUMBER:	2004:95232 USPATFULL Full-text			
TITLE:	Shaped metal fixed-bed catalyst, and a process for its preparation and its use			
INVENTOR(S):	Sauer, Jorg, Dulmen, GERMANY, FEDERAL REPUBLIC OF Haas, Thomas, Frankfurt, GERMANY, FEDERAL REPUBLIC OF Keller, Bruno, Wackernheim, GERMANY, FEDERAL REPUBLIC OF Freund, Andreas, Gelnhausen, GERMANY, FEDERAL REPUBLIC OF Burkhardt, Werner, Brachtal, GERMANY, FEDERAL REPUBLIC OF Michelchen, Dietrich, Erlensee, GERMANY, FEDERAL REPUBLIC OF Berweiler, Monika, Maintal, GERMANY, FEDERAL REPUBLIC OF			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004072686	A1	20040415	
APPLICATION INFO.:	US 2001-988390	A1	20011119 (9)	<--
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-81568, filed on 19 May 1998, GRANTED, Pat. No. US 6337300			
	NUMBER	DATE		
PRIORITY INFORMATION:	DE 1997-19721897	19970526		<--
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	APPLICATION			
LEGAL REPRESENTATIVE:	SMITH, GAMBRELL & RUSSELL, LLP, 1850 M STREET, N.W., SUITE 800, WASHINGTON, DC, 20036			
NUMBER OF CLAIMS:	16			
EXEMPLARY CLAIM:	1			
LINE COUNT:	564			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A shaped metal fixed-bed catalyst is disclosed which is made from at least one catalyst alloy formed of a catalyst metal and an extractable alloying component. The catalyst is activated in an outer layer with a thickness of 0.1 to 2.0 mm, starting from the surface, by complete or partial extraction of the extractable alloying component. The catalyst may also contain promoters. The catalyst is distinguished from known catalysts in that it is formed exclusively of the catalyst alloy and is free of alpha-aluminum oxide, and has a total pore volume of 0.1 to 0.6 ml/g and a bulk density lower than 2.2 kg/l. The catalyst is used for hydrogenation, dehydrogenation and hydrogenolysis reactions.

IT 25214-85-1, Ultraform N2320
(Ultraform N2320, pore-former; porous shaped metal alloy fixed-bed catalyst free of α-alumina for hydrogenation)

RN 25214-85-1 USPATFULL
CN 1,3-Dioxepane, polymer with 1,3,5-trioxane (9CI) (CA INDEX NAME)

CM 1

CRN 505-65-7
CMF C5 H10 O2

CM 2

CRN 110-88-3
CMF C3 H6 O3

IT 7440-66-6, Zinc, processes
(extractable alloying component; porous shaped metal alloy fixed-bed catalyst free of α-alumina for hydrogenation)

RN 7440-66-6 USPATFULL
CN Zinc (CA INDEX NAME)

IT 7439-89-6, Iron, processes 7439-98-7, Molybdenum, processes 7440-02-0, Nickel, processes 7440-32-6, Titanium, processes 7440-47-3, Chromium, processes 7440-48-4, Cobalt, processes 7440-50-8, Copper, processes
(porous shaped metal alloy fixed-bed catalyst free of α-alumina for hydrogenation)

RN 7439-89-6 USPATFULL
CN Iron (CA INDEX NAME)

RN 7439-98-7 USPATFULL
CN Molybdenum (CA INDEX NAME)

RN 7440-02-0 USPATFULL

CN Nickel (CA INDEX NAME)

RN 7440-32-6 USPATFULL
CN Titanium (CA INDEX NAME)

RN 7440-47-3 USPATFULL
CN Chromium (CA INDEX NAME)

RN 7440-48-4 USPATFULL
CN Cobalt (CA INDEX NAME)

RN 7440-50-8 USPATFULL
CN Copper (CA INDEX NAME)

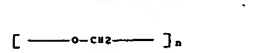
L162 ANSWER 56 OF 71 USPATFULL on STN

ACCESSION NUMBER:	93:42574 USPATFULL Full-text			
TITLE:	Central hubs for flexible magnetic data discs formed of magnetically soft polyacetal compositions			
INVENTOR(S):	Hughes, Patrick M., Clinton, NJ, United States			
PATENT ASSIGNEE(S):	Hoechst Celanese Corporation, Somerville, NJ, United States (U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5214555		19930525	<--
APPLICATION INFO.:	US 1991-683953		19910412 (7)	<--
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			

PRIMARY EXAMINER: Wolff, John H.
LEGAL REPRESENTATIVE: Nixon & Vanderhye
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 540
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Flexible sheet-like magnetic discs (so-called "floppy discs") are provided with a central hub formed of a magnetically soft polyacetal composition. The polyacetal composition necessarily includes a polyacetal resin and elemental iron particles homogeneously dispersed throughout the polyacetal resin in an amount sufficient to impart the desired soft magnetic properties to the inherently nonmagnetic polyacetal base resin. The polyacetal compositions of this invention are injection-moldable so that central hubs for flexible magnetic discs can be rapidly and economically produced.

IT 9002-81-7, Poly(oxymethylene)
(magnetically soft compns. from iron powder and, for magnetic disks)
RN 9002-81-7 USPATFULL
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



IT 7439-89-6, Iron, uses
(magnetically soft compns. from polyacetals and powder of, for magnetic disks)
RN 7439-89-6 USPATFULL
CN Iron (CA INDEX NAME)

Fe

L162 ANSWER 57 OF 71 USPATFULL on STN
ACCESSION NUMBER: 93:14317 USPATFULL Full-text
TITLE: Production of preforms from ceramic or metallic fibers
INVENTOR(S): Bittler, Knut, Speyer, Germany, Federal Republic of
Ter Maat, Johan H. H., Mannheim, Germany, Federal Republic of
Sterzel, Hans-Josef, Dannstadt-Schauernheim, Germany, Federal Republic of
PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Ludwigshafen, Germany, Federal Republic of (non-U.S. corporation)

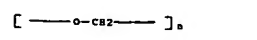
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5188782		19930223	<--
APPLICATION INFO.:	US 1990-596543		19901003 (7)	<--

	NUMBER	DATE	
PRIORITY INFORMATION:	DE 1989-3935276	19891024	<--
	DE 1990-4003219	19900203	<--

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Derrington, James
LEGAL REPRESENTATIVE: Keil & Weinkauf
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
LINE COUNT: 196
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Preforms are produced from ceramic and/or metallic fibers by injection molding or extruding a mixture containing the fibers and a thermoplastic binder, said thermoplastic binder being polyoxymethylene, which after the shaping is removed by treatment in a gaseous acid-containing atmosphere or in a gaseous BF.sub.3 -containing atmosphere.

IT 9002-81-7, Polyoxymethylene
(binder, for ceramic and metallic fibers, for molded products and binder removal in acidic gas atmospheric)
RN 9002-81-7 USPATFULL
CN Poly(oxymethylene) (8CI, 9CI) (CA INDEX NAME)



IT 7439-89-6, Iron, uses and miscellaneous 7440-32-6, Titanium, uses and miscellaneous
(fibers, molding of, with polyoxymethylene binder, for shaped articles by binder removal in acidic gas atmospheric)
RN 7439-89-6 USPATFULL
CN Iron (CA INDEX NAME)

Fe

RN 7440-32-6 USPATFULL
CN Titanium (CA INDEX NAME)

Ti

L162 ANSWER 58 OF 71 USPATFULL on STN
ACCESSION NUMBER: 90:73243 USPATFULL Full-text
TITLE: Process for producing composite laminate comprising insert part and injection-molded part
INVENTOR(S): Katoh, Naoyuki, Yokkaichi, Japan
Aoki, Masahiro, Yokkaichi, Japan
Tsukamoto, Takeo, Yokkaichi, Japan
PATENT ASSIGNEE(S): Mitsubishi Yuka Badische Co., Ltd., Yokkaichi, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4957677		19900918	<--
APPLICATION INFO.:	US 1988-244106		19880914 (7)	<--

	NUMBER	DATE	
PRIORITY INFORMATION:	JP 1987-311731	19871209	<--
	JP 1987-311732	19871209	<--
	JP 1988-112114	19880509	<--

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Silbaugh, Jan H.
ASSISTANT EXAMINER: Timm, Catherine
LEGAL REPRESENTATIVE: Oblon, Spivak, McClelland, Maier & Neustadt
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 875
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for producing a composite laminate comprising a insert part and an injection-molded resin part by coating the insert part with a primer comprising a copolymer aqueous emulsion having a glass transition point of not higher than 20° C. which is obtained by emulsion polymerization of a monomer mixture consisting mainly of (a) from 35 to 75% by weight of an alkyl acrylate having from 1 to 8 carbon atoms in the alkyl moiety thereof, (b) from 10 to 50% by weight of an alkyl methacrylate having from 1 to 4 carbon atoms in the alkyl moiety thereof, (c) up to 15% by weight of styrene and/or acrylonitrile, the sum of the (b) and (c) components ranging from 15 to 55% by weight, (d) up to 5% by weight of a vinyl monomer selected from the group consisting of an α,β-unsaturated acid or an anhydride thereof, 2-hydroxyethyl (meth)acrylate, 2-hydroxypropyl (meth)acrylate, (meth)acrylamide, and methylol(meth)acrylamide, and (e) up to 30% by weight of other vinyl monomer(s), drying the primer, inserting the insert part into a cavity of an injection mold, injecting a molten resin into the cavity to thereby unite the insert part and the injected resin molded part into one body. The composite laminate is resistant to thermal shocks or electrical shocks.

IT 7440-66-6, Zinc, uses and miscellaneous
(laminates with acetal polymers, acrylate emulsion adhesives for)
RN 7440-66-6 USPATFULL
CN Zinc (CA INDEX NAME)

Zn

IT 25214-85-1, Ultraform N 2320
(molding and lamination of, with metals, acrylate emulsion adhesives for)
RN 25214-85-1 USPATFULL
CN 1,3-Dioxepane, polymer with 1,3,5-trioxane (9CI) (CA INDEX NAME)

CM 1

CRN 505-65-7
CMF C5 H10 O2

CM 2

CRN 110-88-3
CMF C3 H6 O3

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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' - CONTINUE? (Y)/N:y

L162 ANSWER 59 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-502382 [55] WPIX
DOC. NO. CPI: C2001-151021 [55]
TITLE: Composition for polymerization of olefins comprises metallocene and second metal compound based on bidentate ligands containing heterocycle moieties
DERWENT CLASS: A17; A18; E11; E12
INVENTOR: ERICKSON K A; KAROL F J; KWACK T H; MAWSON S; MURRAY R E; SCHRECK D J; SZUL J F
PATENT ASSIGNEE: (ERIC-I) ERICKSON K A; (KARO-I) KAROL F J; (KWAC-I) KWACK T H; (MAWS-I) MAWSON S; (MURR-I) MURRAY R E; (SCHR-I) SCHRECK D J; (SZUL-I) SZUL J F; (UNVN-C) UNIVATION TECHNOLOGIES LLC
COUNTRY COUNT: 30

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 2001040325	A1	20010607	(200155)*	EN	50[3]	C08F010-00	<--
AU 2000077499	A	20010612	(200159)	EN			<--
US 6340730	B1	20020122	(200208)	EN		C08F004-44	<--
US 20020107341	A1	20020808	(200254)	EN		C08F004-44	<--
BR 2000016197	A	20020813	(200262)	PT			<--
EP 1252199	A1	20021030	(200279)	EN		C08F010-00	<--
JP 2003515628	W	20030507	(200331)	JA	55	C08F004-642	
US 6566462	B2	20030520	(200336)	EN		C08F004-44	
AU 775512	B2	20040805	(200474)	EN			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001040325 A1		WO 2000-US27235	20001003
US 6340730 B1		US 1999-455883	19991206
US 20020107341 A1	Div Ex	US 1999-455883	19991206
US 6566462 B2	Div Ex	US 1999-455883	19991206
AU 2000077499 A		AU 2000-77499	20001003
AU 775512 B2		AU 2000-77499	20001003
BR 2000016197 A		BR 2000-16197	20001003
EP 1252199 A1		EP 2000-967279	20001003
BR 2000016197 A		WO 2000-US27235	20001003
EP 1252199 A1		WO 2000-US27235	20001003
JP 2003515628 W		WO 2000-US27235	20001003
JP 2003515628 W		JP 2001-541079	20001003
US 20020107341 A1		US 2001-974193	20011010
US 6566462 B2		US 2001-974193	20011010

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 775512 B2	Previous Publ	AU 2000077499 A
US 6566462 B2	Div ex	US 6340730 B
AU 2000077499 A	Based on	WO 2001040325 A
BR 2000016197 A	Based on	WO 2001040325 A
EP 1252199 A1	Based on	WO 2001040325 A
JP 2003515628 W	Based on	WO 2001040325 A
AU 775512 B2	Based on	WO 2001040325 A

PRIORITY APPLN. INFO: US 1999-455883 19991206
US 2001-974193 20011010

INT. PATENT CLASSIF.:
MAIN: C08F004-642
IPC RECLASSIF.: C07D0213-00 [I,C]; C07D0213-36 [I,A]; C07D0213-38 [I,A]; C07F0017-00 [I,A]; C07F0017-00 [I,C]; C07F0007-00 [I,A]; C07F0007-00 [I,C]; C08F0010-00 [I,A]; C08F0010-00 [I,C]; C08F0210-00 [I,C]; C08F0210-16 [I,A]; C08F0004-00 [I,C]; C08F0004-16 [I,A]; C08F0004-44 [I,A]; C08F0004-642 [I,A]; C08F0004-659 [I,A]; C08F0004-6592 [I,A]

BASIC ABSTRACT:
WO 2001040325 A1 UPAB: 20060117
NOVELTY - A composition for the polymerization of olefins comprises a metallocene and a second metal compound based on bidentate ligands containing heterocycle moieties.
DETAILED DESCRIPTION - A composition (C) comprises a metallocene and a second compound of formulae ((Z)XAt(YJ)qMQn or ((R'mlZ')Z'At(YJRml))qMQn.
M = metal selected from Group IIIb - Va or lanthanide and actinide series (preferably Group IVb);
Q = mono-, bi- or trivalent anion and is bonded to M;
X and Y = carbon or a heteroatom and is bonded to M;
Z' = 1- 0 non-hydrogen atoms and is bonded to X;
Z' = hydrocarbyl group, optionally including at least one heteroatoms and is bonded to X;
t = 0 or 1;
q = 1 or 2;
n = oxidation state of M - q - 1, (M - q)/2 or (M - q)/3;
R = hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl or aryloxy radicals and at least two of R groups joined to form a cyclic moiety;

R = hydrogen, (cyclic)alkyl, alkenyl, alkymyl or aryl and at least two of R' groups may be joined to form a cyclic moiety;
m1 = 0 - 5.
At least one of X and Y is a heteroatom and Y is contained in a heterocyclic ring J, in which J comprises from 2 - 50 non-hydrogen atoms. When t is 1, A is a bridging group joined to at least one of X, Y or J. n is the oxidation state of M - q - 1 if Q is a monovalent anion. n is the oxidation state of (M -q)/2, if Q is a bivalent anion, or n is (the oxidation state of M - q)/3 if Q is a trivalent anion; optionally R' and R may be joined to A.
An INDEPENDENT CLAIM is also included for the polymerization of olefins by reacting olefins with a catalyst system containing an activator and the composition (C).
USE - The composition (C) is used in solution, gas and/or slurry polymerization processes for the polymerization of olefins to produce polyolefins which are useful for preparation of films, molded articles, pipes, wire, cable coating and sheets.
ADVANTAGE - The processable polyethylene polymers obtained from a single reactor process have desirable processing, mechanical and optical properties.

MANUAL CODE: CPI: A02-A06E; A04-G01A; A10-B01; E05-ED1; E05-F; E05-G01; E05-J; E05-L01; E05-L03A; E05-M; E05-N; E05-P; E05-Q

TECH
INORGANIC CHEMISTRY - Preferred Components: The metallocene comprises a transition metal compound of formulae (I) (II) or(L'p)m'M(Aq')b(Er)d (III).
M' = transition metal from Group IVb, Vb or VIb;
L = optionally substituted pi-bonded ligand coordinated to M', optionally with at least one 1-20C hydrocarbyl substituent groups;
Q = O, NR, CR2 or S;
Y' = C or S;
Z1 = -OR, -NR2, -CR3, -SR, -SiR3, -PR2, -H or optionally substituted aryl;
n' = 1 or 2;
A' = monovalent or divalent anionic group;
R = group containing carbon, silicon, nitrogen, oxygen, and/or phosphorus and at least one R group may be attached to the L substituent;
T = bridging group selected from 1-10C alkylene or 1-10C arylene groups optionally substituted with carbon or heteroatom(s), germanium, silicon and alkyl phosphine;
m = 2 - 7;
L' = optionally substituted bulky ligand (preferably optionally substituted cyclopentadienyl, indenyl or fluorenyl group);
p = anionic charge of L';
m' = 1-3 (preferably 2);
A = ligand bonded to M and capable of inserting an olefin between M-A bond;
q' = anionic charge of A;
b = 1 - 4;
E = anionic leaving group;
r = anionic charge of E;
d = 1-4 such that (p x m')+(q' x b)+(r x d) is equal to the formal oxidation state of M.
When Q is -NR- then Z1 is -OR, -NR2, -SR, -SiR3, -PR2 and -H; A' is a univalent anionic group when n is 2 or A' is a divalent anionic group when n is 1. The two L' ligands are bridged together. The bridge is germanium, silicon, carbon, tin, lead, nitrogen, oxygen, sulfur, phosphorous, fluorine or chlorine.
The second metal compound is of the formulae (IV), (V) or (VI).
Ra and Rb = alkyl, aryl, heterocyclic group or H;
Rc and Rd = halogen, H, alkyl, aryl, alkenyl, alkylaryl, arylalkyl, 1-20C

hydrocarboxy, amide, phosphides, sulfides, silylalkyls, diketonates, or carboxylates;
L = halides, alkyl or arylalkyl (preferably arylalkyl, especially benzyl).
The activator is an alkyl aluminum compound, non-coordinating anion, non-coordinating group 13 metal or metalloid anion, a borane and/or borate or modified alumoxane (preferably borane, borate or aluminate, especially at least one of tri (n-butyl) ammonium tetrakis (pentafluorophenyl) boron, triphenyl boron, triethyl boron, tri-n-butyl ammonium tetraethylborate or triaryl borane).
The metallocene and second metal catalyst compounds are combined at molar ratios of 1:1000 - 1000:1 (preferably 1:99 - 99:1, more preferably 20:80 - 80:20, especially 30:70 - 70:30, particularly 40:60 - 60:40). Hydrogen is present in the reactor at a concentration of about 200 - 2000 ppm.
The metallocene plus the second metal compound are combined with the activator in ratios of 1000:1 - 0.5:1 (preferably 300:1 - 1:1, more preferably 150:1 - 1:1, especially 1:1 - 10:1)

ABEX SPECIFIC COMPOUNDS - Bis(1-methyl-3-n-butylcyclopentadienyl) zirconium dichloride, tetrahydroindenyl zirconium tris pivalate and indenylzirconiumtrispivalate are specifically claimed as the metallocenes. N-(1-(2-pyridyl)-1-methylethyl)(1-N-2,6-diisopropylphenyl amido)zirconium tribenzyl, N-(1-(2-pyridyl)-1-benzylethyl)(1-N-2,6-diisopropylphenyl amido)zirconium tribenzyl, N-(1-(2-pyridyl)-1-vinyl)(1-N-2,6-diisopropylphenyl amido)zirconium tribenzyl and N-(1-(2-pyridyl)-1-methylethyl)(1-N-2,6-diisopropylphenyl amido)(2-phenylmethyl-isopropyloxy)zirconium dibenzyl are specifically claimed as second metal compounds.
EXAMPLE - An ethylene hexene copolymer was produced in a gas phase reactor at 85 degreesC and 350 psig total reactor pressure having a water cooled heat exchanger. Ethylene, hexene, hydrogen and nitrogen were fed to the reactor at a rate of about 40 pounds per hour, 0.9 pounds per hour, 13 mPPH and 21 - 8 PPH respectively. The production rate was about 21 PPH. A toluene solution containing 0.02 moles zirconium/liter (0.43:1 molar ratio of (1-(2-pyridyl)N-1-methylethyl)(1-N-2,6-diisopropylphenyl amido)zirconium tribenzyl (catalyst A)/tetrahydroindenyl zirconium trispivalate (catalyst B)) was contacted with 1-hexene (0.20 PPH) and MMAO-3A (1.8 wt. % aluminum in 25% heptane/75% hexane solution) in-line prior to being passing through the injection nozzle into the fluidized bed. MMAO to catalyst was controlled so that the Al:Zr molar ratio was 300:1. Nitrogen was also fed to the injection nozzle as needed to maintain a stable average particle size. A bimodal molecular weight distribution polymer was obtained. - A comparative ethylene hexene copolymer was produced by the above method except that the feeding rate of ethylene, hexene and hydrogen was 43 pounds per hour, 1.1 pound per hour (0.5 kg/hr) and 15 mPPH respectively. The production rate was about 22.5 PPH. A 0.02 moles/liter catalyst A in toluene solution was contacted with a cocatalyst solution of MMAO-3A in a continuous on-line fashion to obtain a unimodal molecular weight distribution polymer. - The test/comparative polymer had melt index (I2)(dg/min) of 0.45/0.23; density (g/cm3) of 0.9401/0.9298 and % high molecular weight analyzed by size exclusion chromatography as 70/100.

L162 ANSWER 60 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-137589 [14] WPIX
DOC. NO. CPI: C2001-040292 [14]
TITLE: Copolymer useful as an additive for fuels and lubricating oils is produced by contacting at least one approximately alpha-olefin and a masked aminoalkene with a metallocene catalyst and at least one co-catalyst
DERWENT CLASS: A14; A17; A97; E11; E12; H06; H07
INVENTOR: REED W; WEATHERHEAD R H

PATENT ASSIGNEE: (BRPE-C) BP CHEM LTD
COUNTRY COUNT: 89

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 2000069921	A1	20001123	(200114)*	EN	28[0]	C08F008-00	<--
AU 2000044213	A	20001205	(200114)	EN		C08F008-00	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000069921	A1	WO 2000-GB1615	20000426
AU 2000044213	A	AU 2000-44213	20000426

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000044213 A	Based on	WO 2000069921 A

PRIORITY APPLN. INFO: GB 1999-11242 19990515
INT. PATENT CLASSIF.:
IPC RECLASSIF.: C08F0210-00 [N,C]; C08F0210-06 [N,A]; C08F0008-00 [I,A]; C08F0008-00 [I,C]

BASIC ABSTRACT:
WO 2000069921 A1 UPAB: 20050525
NOVELTY - A copolymer is produced by contacting at least one alpha-olefin containing three to five carbon atoms and a masked aminoalkene with a metallocene catalyst and at least one co-catalyst.
DETAILED DESCRIPTION - A copolymer is produced by: (a) contacting at least one 3-5C alpha-olefin, optionally ethylene and a masked aminoalkene with a metallocene catalyst of formula (C5HARn1)2MX2 (I) or (C5HBR'n2)(C5HER'm)M(Z)Y (II), and at least one co-catalyst; and (b) optionally demasking the resulting copolymer to form an amine-functionalized copolymer. (I) is an unbridged metallocene and (II) is a meso form of the metallocene catalyst.
A = (5-n1);
B = (5-n2);
E = (5-m);
R = H or alkyl;
M = titanium, hafnium or zirconium;
X = alkyl, halide or a trifluoromethyl sulfonate group;
n1 = 0 - 5;
R' = H, alkyl or an aryl substituent on the cyclopentadienyl ligand;
Z = H, X or aryl;
Y = X, 1,3-diketone or beta-ketoester;
m and n2 = 1 - 3.
provided that a single R' substituent on each cyclopentadienyl group when taken together, represent Si or C bridging group linking two cyclopentadienyl groups with Si or C bridging group is itself optionally substituted by at least one hydrogen atom and/or at least one 2-3C alkyl. An INDEPENDENT CLAIM is also included for:
(1) a non-crystalline amine functionalized copolymer produced by the process;
(2) producing the copolymer by:(c) contacting at least one 3-5C alpha-olefin, optionally ethylene and a masked hydroxyalkene with at least one metallocene catalyst of formula (I) or (II) and at least one co-catalyst to

form an intermediate non-crystalline copolymer; (d) demasking the intermediate copolymer and converting the hydroxyl functionalities of the intermediate non-crystalline copolymer into functionalities;

(3) a lubricating oil composition containing a lubricating oil and the copolymer (0.1 - 20) weight% and

(4) a fuel composition containing a fuel and the copolymer (200 - 800) ppm.

USE - As a dispersant for lubricating oils and hydrocarbon fuels and as a viscosity improver for lubricating oils (all claimed).

ADVANTAGE - The copolymer is soluble in an iso-octane above -20 degreesC.

MANUAL CODE: CPI: A02-A06E; A02-A06E1; A02-A07A; A04-D09; A04-G01A; A04-G01E; A10-B01; A12-T03B; A12-W02A; E05-B02; E05-E01; E05-E02; E05-L01; E05-M; E05-N; H06-D03; H07-G03; H07-G06

TECH

POLYMERS - Preferred Copolymer: The amine functionalities of the copolymer are masked. The copolymer contains (0.01 - 25) mol% of units derived from the aminoalkene. The copolymer is an atactic, random copolymer having a molecular weight distribution of less than 3 and a number average molecular weight of 1000 - 500,000.

ORGANIC CHEMISTRY - Preferred Components: The aminoalkene is of formula R1R2N-R3-CH=CH2 and the hydroxyalkene is of formula HO-R4-CH=CH2.

R1, R2 = H or hydrocarbyl;

R3, R4 = an aromatic group, a cycloaliphatic group or an aliphatic group; R1 and R2 optionally join to form a 5 or 6 membered ring which is optionally substituted by nitrogen and/or oxygen. The aminoalkene is masked by an aluminum trialkyl.

ABEX SPECIFIC COMPOUNDS - Bis(1,3-dimethylcyclopentadienyl)zirconium dichloride, bis(1,3-dimethylcyclopentadienyl)zirconium methyl trifluorosulfonate, bis(cyclopentadienyl)zirconium dichloride, bis(cyclopentadienyl)zirconium methyl trifluorosulfonate, bis(1-methylcyclopentadienyl)zirconium dichloride and bis(1-methylcyclopentadienyl)zirconium methyl trifluorosulfonate are specifically claimed as the unbridged metallocene catalysts. Dimethylsilyl(biscyclopentadienyl)zirconium dichloride, dimethylsilylbis(1-indenyl)zirconium dichloride and ethylenebis(4,5,6,7-tetrahydro-1-indenyl)zirconium dichloride are specifically claimed as the meso metallocene catalysts. The aminoalkene is selected from undec-10-en-1-amine, dec-9-en-1-amine, N,N-dimethylundec-10-en-1-amine, N,N-dimethylundec-9-en-1-amine, an optionally substituted vinyl pyridine or a tertiary amine.

EXAMPLE - An autoclave was purged by heating under nitrogen. Dry toluene (0.5 L) and triisobutylaluminum (250 ml) as a 1M solution in toluene (i) were introduced into the autoclave. N-N-dimethylamino undec-10-ene (47.2 g) in (i)(20 ml) was then added. The autoclave was sealed and liquid propylene 200 ml was transferred to it at 80degreesC. Methylaluminoxane (MAO)(20 ml) as 10 wt.% solution in (i) and bis(1,3-dimethylcyclopentadienyl)zirconium dichloride catalyst (12.5 micromoles) as a solution in (i)(20 ml) were then injected into the autoclave. When reaction was started, propene (75 ml), additional catalyst and (MAO) were added to the autoclave. When the pressure had dropped to 5 bar, the reactor was rapidly cooled and the excess propene vented, and ethanol (75 ml) was added to deactivate remaining aluminum alkyl. The liquid product was stirred with moist silica gel (16 gm) to react with aluminum and zirconium alkoxides, filtered and solvent was evaporated. The viscous liquid was then diluted with heptane and extracted with methanol to remove tert-amine. The heptane phase was removed and the solvent and light ends removed by vacuum stripping. The copolymer obtained had (mole): propene (93.6) and amine (6.4). The copolymer (0.1 g) was diluted with iso-octane

to form a clear solution. The solution was stored in a vial and placed in a refrigerator at -20 degreesC for a week. The solution was remained water-white. The solution was then placed in a freezing mixture of acetonitrile/cardice -42 degreesC. After 4 days some cloudiness was observed, but not any material deposition. Thus, the copolymer was observed to be soluble in iso-octane above -20 degreesC, but on further cooling remained in dispersion.

L162 ANSWER 61 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2000-411412 [35] WPIX
DOC. NO. CPI: C2000-124523 [35]
TITLE: Preparation of a catalysts system for use in hydrogenation of an olefinically unsaturated compound involves reacting a metallocene with a metal hydride or an organometallic compound
DERWENT CLASS: A18; E12; E17; H04
INVENTOR: HEIJDEN H V D; VAN DE WEG H; VAN DER HEIJDEN H; WEG H V D
PATENT ASSIGNEE: (HEIJ-I) HEIJDEN H V D; (SHEL-C) SHELL INT RES MIJ BV; (SHEL-C) SHELL OIL CO; (WEGH-I) WEG H V D
COUNTRY COUNT: 89

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 2000025915	A2	20000511	(200035)*	EN	29[8]	B01J031-00	<--
AU 2000026595	A	20000522	(200040)	EN		B01J031-00	<--
BR 9914924	A	20010710	(200142)	PT		B01J031-00	<--
EP 1131156	A2	20010912	(200155)	EN		B01J031-12	<--
KR 2001083935	A	20010903	(200217)	KO		B01J031-12	<--
EP 1131156	B1	20020918	(200269)	EN		B01J031-12	<--
US 6461993	B1	20021008	(200269)	EN		C08F004-02	<--
ZA 2001003702	A	20020731	(200271)	EN	41	B01J000-00	<--
DE 69903058	E	20021024	(200278)	DE		B01J031-12	<--
ES 2184520	T3	20030401	(200328)	ES		B01J031-12	
US 20030073571	A1	20030417	(200329)	EN		B01J031-00	
JP 2003524515	W	20030819	(200356)	JA	31	B01J031-12	
TW 583027	A	20040411	(200468)	ZH			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000025915	A2	WO 1999-EP6311	19991028
TW 583027	A	TW 1999-117150	19991005
US 6461993	B1	US 1999-416218	19991008
US 20030073571	A1 Div Ex	US 1999-416218	19991008
BR 9914924	A	BR 1999-14924	19991028
DE 69903058	E	DE 1999-69903058	19991028
EP 1131156	A2	EP 1999-968770	19991028
EP 1131156	B1	EP 1999-968770	19991028
DE 69903058	E	EP 1999-968770	19991028
ES 2184520	T3	EP 1999-968770	19991028
BR 9914924	A	WO 1999-EP6311	19991028
EP 1131156	A2	WO 1999-EP6311	19991028
EP 1131156	B1	WO 1999-EP6311	19991028
DE 69903058	E	WO 1999-EP6311	19991028
JP 2003524515	W	WO 1999-EP6311	19991028
AU 2000026595	A	AU 2000-26595	19991028
JP 2003524515	W	JP 2000-579346	19991028

KR 2001083935 A KR 2001-705486 20010430
ZA 2001003702 A ZA 2001-3702 20010508
US 20030073571 A1 US 2002-191439 20020709

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69903058 E	Based on	EP 1131156 A
ES 2184520 T3	Based on	EP 1131156 A
AU 2000026595 A	Based on	WO 2000025915 A
BR 9914924 A	Based on	WO 2000025915 A
EP 1131156 A2	Based on	WO 2000025915 A
EP 1131156 B1	Based on	WO 2000025915 A
DE 69903058 E	Based on	WO 2000025915 A
JP 2003524515 W	Based on	WO 2000025915 A

PRIORITY APPLN. INFO: EP 1998-308932 19981030
INT. PATENT CLASSIF.:
MAIN: B01J031-00; B01J031-12
IPC RECLASSIF.: B01J0031-12 [I,A]; B01J0031-12 [I,C]; B01J0031-16 [I,C]; B01J0031-22 [I,A]; B01J0037-00 [I,C]; B01J0037-00 [I,C]; B01J0037-04 [I,A]; B01J0037-18 [I,A]; C07B0031-00 [I,C]; C07B0061-00 [I,A]; C07B0061-00 [I,C]; C07C0015-00 [I,C]; C07C0015-12 [I,A]; C07C0005-00 [I,C]; C07C0005-05 [I,A]; C07C0009-00 [I,C]; C07C0009-22 [I,A]; C08C0019-00 [I,C]; C08C0019-02 [I,A]; C08F0008-00 [I,C]; C08F0008-04 [I,A]

BASIC ABSTRACT:

WO 2000025915 A2 UPAB: 20060116

NOVELTY - Hydrogenation catalyst system is prepared by reacting group 4 metallocene (A) with a metal hydride or an organometallic compound (B) and activating the mixture with hydrogen at a hydrogen pressure (p), and at a temperature (T). A neutralizing agent is added prior to activation or during its activation. The mixture has a B/A molar ratio of greater than 10.

DETAILED DESCRIPTION - Preparation of hydrogenation catalyst system involves the reaction of group 4 metallocene (A) with a metal hydride or an organometallic compound (B) at a molar ratio (B/A) of greater than 10. The catalyst mixture is activated with hydrogen at a hydrogen pressure (p) and at a certain temperature (T). A neutralizing agent is added to the catalyst mixture prior to activation or within (t) hours from activation.

t = x/(pxTx(B)/(A))

x = 10000

An INDEPENDENT CLAIM is also included for a process for the hydrogenation of an olefinically unsaturated compound with hydrogen in the presence of the novel hydrogenation catalyst system.

USE - The catalyst system is used for hydrogenation of an olefinically unsaturated compound.

ADVANTAGE - The novel catalyst system provides higher conversion yield.

MANUAL CODE: CPI: A04-B01D; A10-E13; E05-A; E05-L01; E05-M; E05-N; E07-A03A; E07-A03C; E07-D; E10-A10D; E10-A15F; E10-A18B; E10-B04D; E10-C04L; E10-D01D; E10-D03D; E10-G02H2; E10-J02D; H04-E08; H04-F02E

TECH

ORGANIC CHEMISTRY - Preferred Compound: The group 4 metallocene compound is of formula (A).

R = optionally substituted, fused and/or heterocyclic cyclopentadienyl-like eta5 ligand;

R' = 1-12C hydrocarbyl or carboxyl, carbonyl, beta-diketone or a

halogen atom;

M = zirconium or hafnium (preferably titanium)

Preferred Agent: The neutralizing agent (C) is selected from ketones, sulfoxides, carboxylic acids, carboxylate esters, aldehydes, lactones, lactams, amines, amides, nitriles, epoxy compounds, or oxime compounds. It is preferably an ethanol.

Preferred Ratio: The molar ratio B/A is greater than 15, preferably 20-500. The molar ratio of C with B is 0.4-1.05, preferably 0.6.

Preferred Method: The neutralizing agent is added before contacting the catalyst mixture with hydrogen.

Preferred Condition: The partial hydrogen pressure is carried out at 0.1-10 MPa, preferably 0.1-5 MPa.

Preferred Composition: The metallocene used is from 1-100 (preferably 5-50) mg/kg of unsaturated compound.

POLYMERS - Preferred Polymer: The unsaturated compound is a conjugated diene such as 1,3-butadiene and/or isoprene and their copolymer (random or block) with vinylaromatic monomers, e.g. with styrene.

ABEX SPECIFIC COMPOUNDS - The metallocene is bis(cyclopentadienyl)titanium dichloride. The metal hydride is lithium hydride.

EXAMPLE - Polystyrene-polybutadiene-polystyrene (SBS) block copolymer cement produced by sequential anionic polymerization using sec-butyllithium with cyclohexane and diethoxypropane (140 ppm). The SBS cement (800 g) was charged in a stainless steel reactor. A suspension of bis(cyclopentadienyl)titanium dichloride (Cp2TiCl2) (27.3 mg; 6.5 ppm of Ti on cement) was mixed with SBS cement for 10 min. Ethanol (90 mg) dissolved in cyclohexane (10 ml) was added and the hydrogen pressure was raised to 5 MPa to have an exothermic reaction. Test conversion data on the function of lithium hydride neutralization showed 94 wt.% conversion in 60 min. compared to 57 wt.% conversion of conventional catalyst system and achieved its full 100 wt.% conversion in just 3 h while conventional catalyst achieved only 82 wt.% conversion.

L162 ANSWER 62 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2000-224023 [19] WPIX
DOC. NO. CPI: C2000-068279 [19]
TITLE: Catalyst system for preparing terminally unsaturated polyolefins includes a metallocene, and a cocatalyst comprising an aluminoxane and a metal alkyl compound
DERWENT CLASS: A17; A97; E11; E12; H06; H07; J04
INVENTOR: WEATHERHEAD R H
PATENT ASSIGNEE: (BRPE-C) BP CHEM ADDITIVES LTD; (BRPE-C) BP CHEM LTD; (WEAT-I) WEATHERHEAD R H
COUNTRY COUNT: 84

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 2000008070	A1	20000217	(200019)*	EN	17[0]	C08F010-00	<--
AU 9951772	A	20000228	(200030)	EN		C08F010-00	<--
EP 1115759	A1	20010718	(200142)	EN		C08F010-00	<--
US 20010037005	A1	20011101	(200168)	EN		C08F004-44	<--
KR 2001072275	A	20010731	(200209)	KO		C08F004-642	<--
JP 2002522575	W	20020723	(200263)	JA	22	C08F004-642	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000008070	A1	WO 1999-GB2467	19990728

AU 9951772 A	AU 1999-51772 19990728
EP 1115759 A1	EP 1999-936790 19990728
EP 1115759 A1	WO 1999-GB2467 19990728
US 20010037005 A1 Cont of	WO 1999-GB2467 19990728
JP 2002522575 W	WO 1999-GB2467 19990728
JP 2002522575 W	JP 2000-563701 19990728
KR 2001072275 A	KR 2001-701551 20010205
US 20010037005 A1	US 2001-777014 20010206

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9951772 A	Based on	WO 2000008070 A
EP 1115759 A1	Based on	WO 2000008070 A
JP 2002522575 W	Based on	WO 2000008070 A

PRIORITY APPLN. INFO: GB 1998-17015 19980806
INT. PATENT CLASSIF.:
MAIN: C08F004-642
IPC RECLASSIF.: C08F0010-00 [I,A]; C08F0010-00 [I,C]; C08F0110-00 [N,C]; C08F0110-06 [N,A]; C08F0004-00 [I,C]; C08F0004-44 [I,A]; C08F0004-642 [I,A]; C08F0004-6592 [N,A]

BASIC ABSTRACT:
WO 2000008070 A1 UPAB: 20050410

NOVELTY - Catalyst system includes a metallocene and a cocatalyst comprising an aluminoxane and a group III metal alkyl compound having a least two carbon atoms.

DETAILED DESCRIPTION - Catalyst system includes a metallocene of formula (I) and a cocatalyst comprising an aluminoxane and a group III metal alkyl compound having at least two carbon atoms.

(RmCpH(5-m))(RnCpH(5-n))M(Z)Y (I)

CpH = cyclopentadienyl ligand;

R = alkyl or aryl substituent or 2 Rs join to form a ring or Rs in different CpH groups when taken together form a Si or C bridging group linking two CpH groups, the Si or C group optionally being substituted by H or 1-3C alkyl;

M = Hf, Zr or Ti;

Z and Y = H, halide, trifluoromethane sulfonate, 1,3- diketone, beta-ketoester, alkyl, or aryl; and

m, n = 0-5.

INDEPENDENT CLAIMS are also included for:

(A) a process for the preparation of pure terminally unsaturated polymers or copolymers of alpha-olefins or copolymers of alpha-olefins with ethylene, which comprises (co)polymerizing the alpha-olefin in the presence of the catalyst system;

(B) a process for controlling the molecular weight of terminally unsaturated atactic polymers or copolymers of alpha-olefins having a molecular weight of 300-500,000 using the catalyst system; and

(C) terminally unsaturated atactic polymers or copolymers of alpha-olefins having a number average molecular weight of 300-500,000 prepared by use of the catalyst system.

USE - The catalyst is used for preparing terminally unsaturated polyolefins which may further be derivatized to make products useful as fuel and lubricant additives, e.g. dispersants, wax modifiers, flow improvers, dispersant-viscosity index improvers or viscosity modifiers.

ADVANTAGE - The use of the group III metal compound allows for a reduction in the aluminoxane content in the cocatalyst. The (co)polymers formed from the catalyst system have low level of catalyst, cocatalyst, or support residues when compared with (co)polymers obtained by (co)polymerization using

conventional catalyst/cocatalyst processes whether in slurry or dissolved form.

MANUAL CODE: CPI: A02-A06E; A02-A07A; A04-G01A; E05-B02; E05-C02; E05-E02; E05-L01; E05-H; E05-K; H06-D; H07-G08; J04-E04

Member(0003)

ABEQ EP 1115759 A1 UPAB 20050410

NOVELTY - Catalyst system includes a metallocene and a cocatalyst comprising an aluminoxane and a group III metal alkyl compound having a least two carbon atoms.

DETAILED DESCRIPTION - Catalyst system includes a metallocene of formula (I) and a cocatalyst comprising an aluminoxane and a group III metal alkyl compound having at least two carbon atoms.

(RmCpH(5-m))(RnCpH(5-n))M(Z)Y (I)

CpH = cyclopentadienyl ligand;

R = alkyl or aryl substituent or 2 Rs join to form a ring or Rs in different CpH groups when taken together form a Si or C bridging group linking two CpH groups, the Si or C group optionally being substituted by H or 1-3C alkyl;

M = Hf, Zr or Ti;

Z and Y = H, halide, trifluoromethane sulfonate, 1,3-diketone, beta-ketoester, alkyl, or aryl; and

m, n = 0-5.

INDEPENDENT CLAIMS are also included for:

(A) a process for the preparation of pure terminally unsaturated polymers or copolymers of alpha-olefins or copolymers of alpha-olefins with ethylene, which comprises (co)polymerizing the alpha-olefin in the presence of the catalyst system;

(B) a process for controlling the molecular weight of terminally unsaturated atactic polymers or copolymers of alpha-olefins having a molecular weight of 300-500,000 using the catalyst system; and

(C) terminally unsaturated atactic polymers or copolymers of alpha-olefins having a number average molecular weight of 300-500,000 prepared by use of the catalyst system.

USE - The catalyst is used for preparing terminally unsaturated polyolefins which may further be derivatized to make products useful as fuel and lubricant additives, e.g. dispersants, wax modifiers, flow improvers, dispersant-viscosity index improvers or viscosity modifiers.

ADVANTAGE - The use of the group III metal compound allows for a reduction in the aluminoxane content in the cocatalyst. The (co)polymers formed from the catalyst system have low level of catalyst, cocatalyst, or support residues when compared with (co)polymers obtained by (co)polymerization using conventional catalyst/cocatalyst processes whether in slurry or dissolved form.

TECH

ORGANIC CHEMISTRY - Preferred Compounds: The aluminoxane is methyl aluminoxane. Th group III metal alkyl is a trialkyl aluminum compound, preferably triisobutylaluminum, or a trialkyl boron compound. The alpha-olefin includes propylene, 1-butene or 1-decene.

Preferred Composition: The ratio of the group III metal alkyl compound to the aluminoxane is 100:1 to 1:0.01. The ratio of the metal to aluminoxane is 1:1-1:2000, preferably 1:50-1:400.

INORGANIC CHEMISTRY - Preferred Catalyst: The metallocene and/or cocatalyst is supported by silica.

ABEX DEFINITIONS - Preferred Definitions: - R = alkyl; - M = Zr; and - Z and Y = halogen, trifluoromethane sulfonate, 1,3-diketone or beta-ketoester.

EXAMPLE - Propylene (1 L) was polymerized at 70 degreesC for 42 minutes using a catalyst comprising (a) triisobutylaluminum (4 mmoles), bis(1,3-dimethylcyclopentadienyl) zirconium dichloride (12.5 micromoles) and methylaluminoxane (1.5 micromoles). 242 g of polymer of vinylidene

content more than 98%, Mn = 4100 and Mn/Mw 2.3 were obtained. In contrast, when the triisobutylaluminum was omitted it was necessary to include 12.4 micromoles of methylaluminoxane in order to produce 266 g of polymer (Mn = 2400, Mn/Mw = 2.0).

L162 ANSWER 63 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-018897 [03] WPIX
DOC. NO. CPI: C2001-005470 [03]
TITLE: Transition metal compound for olefin polymerization catalyst providing polyolefin with higher molecular weight and wider molecular weight distribution
DERWENT CLASS: A17; A26; E11; E12
INVENTOR: SATO M; WAKABAYASHI Y; YOSHIDA O
PATENT ASSIGNEE: (TOYJ-C) TOSOH CORP
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
JP 2000230011	A	20000822	(200103)*	JA	18[0]	C08F004-76	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2000230011 A		JP 1999-32579 19990210	

PRIORITY APPLN. INFO: JP 1999-32579 19990210
INT. PATENT CLASSIF.:
IPC RECLASSIF.: C07F0017-00 [I,A]; C07F0017-00 [I,C]; C08F0010-00 [I,A]; C08F0010-00 [I,C]; C08F0004-00 [I,C]; C08F0004-642 [I,A]; C08F0004-659 [I,A]; C08F0004-6592 [I,A]; C08F0004-76 [I,A]

BASIC ABSTRACT:
JP 2000230011 A UPAB: 20050705

NOVELTY - A new transition metal compound consists of a Group 3, 4, 5, or 6 transition metal, a hidentated ligand consisting of two groups which are linked with another group, and two ligands selected from 1-20C hydrocarbon, hetero- atom containing hydrocarbon, substituted amino, or substituted alkoxy groups.

DETAILED DESCRIPTION - The new transition metal compound is of formula (I).

M = Group 3, 4, 5, or 6 transition metal;

L1 = formula (II);

A, B = Group 15 or 16 element, methylene, alkylidene, dialkylidene, imide, or substituted imide group;

L2 = formula (III);

L3 = -(C(R4)(R5))m-, -(Si(R4)(R5))m-, -(Ge(R4)(R5))m-, -(N(R4))m-, -(P(R4))m- or formulas (V)-(IX), crosslinking L1 and L2;

R1, R2 = H, 1-20C hydrocarbon, hetero-atom containing hydrocarbon, silyl having hydrocarbon or hetero-atom containing hydrocarbon groups, forming a ring by R1 and R2;

R3 = H, 1-20C hydrocarbon, hetero-atom containing hydrocarbon, silyl having hydrocarbon or hetero-atom containing hydrocarbon groups, forming a ring by itself;

R4, R5 = H, 1-20C hydrocarbon, hetero-atom containing hydrocarbon, silyl having hydrocarbon or hetero-atom containing hydrocarbon groups, forming a ring by R4 and R5;

m = 1-20.

INDEPENDENT CLAIMS are included for

(i) a polyolefin manufacture method by homo- or co-polymerizing an olefin using a catalyst below; and

(ii) an olefin polymerization catalyst comprising:

(A) compound (I),

(B) an activating auxiliary catalyst, and/or

(C) an organometallic compound.

USE - (I) is used in an olefin polymerization catalyst.

ADVANTAGE - (I) provides an olefin polymerization catalyst which is used for cost-effective polyolefin production. Polyolefin (e.g., polyethylene) with a higher molecular weight and a wider molecular weight distribution can be obtained.

MANUAL CODE: CPI: A02-A06; A04-G01A; E05-E; E05-G; E05-H; E05-K; E05-L01; E05-L03A; E05-M; E05-W

ABEX EXAMPLE - The synthesis of (2,2-dimethyl-5-(2'-cyclopentadienylpropyl)-1,3-dioxan-4,6-dione (A) comprises placing cyclopentadienyl lithium (378mg) in a 100ml Schlenk, and adding 2,2-dimethyl-5-isopropylidene-1,3-dioxan-4,6-dione (917mg) to it at -75degreesC dissolved in 30ml THF. After raising the temperature of the reaction liquid to room temperature, 20ml ether and 10ml ethyl acetate are added and organic and aqueous layers are separated out. The organic layer is dried with anhydrous magnesium sulfate and the solvent is distilled off to give the target compound (A) (584mg). - The synthesis of (isopropylidene (cyclopentadienyl) (2,2-dimethyl-1,3-dioxan-4,6-dione-5-yl) (B) titanium bis (dimethylamide) (transition metal compound (I), comprises dissolving tetrakis(dimethylamino) titanium (140mg) in 10ml toluene under a nitrogen atmosphere and (A) (157mg) dissolved in 10ml toluene is added at -76degreesC. The reaction liquid is raised to room temperature, stirred for 7 hours and the solvent is dissolved off to give (B).

L162 ANSWER 64 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1999-254208 [21] WPIX
DOC. NO. CPI: C1999-074274 [21]
TITLE: Catalysts system for preparing terminally unsaturated atactic (co)polymers of alpha olefin(s) - useful as fuel and lubricant additives, comprises metallocene complexes and containing ligands based on triflate, diketonic or ketoesters
DERWENT CLASS: A17; E11; E12; H06; H07
INVENTOR: DORER A; DORER B A; SHARP C; WEATHERHEAD H; WEATHERHEAD R H
PATENT ASSIGNEE: (BRPE-C) BP CHEM LTD
COUNTRY COUNT: 25

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 9905182	A1	19990204	(199921)*	EN	20[0]	C08F004-64	<--
EP 998500	A1	20000510	(200027)	EN		C08F004-64	<--
CN 1264392	A	20000823	(200063)	ZH		C08F004-64	<--
JP 2001510862	W	20010807	(200150)	JA	26	C08F004-64	<--
KR 2001021888	A	20010315	(200159)	KO		C08F004-64	<--
US 6509288	B1	20030121	(200309)	EN		B01J003-20	
EP 998500	B1	20040922	(200462)	EN			
DE 69826481	E	20041028	(200471)	DE			
DE 69826481	T2	20050929	(200560)	DE			
CN 1151178	C	20040526	(200617)	ZH			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9905182 A1		WO 1998-GB2037	19980710
CN 1264392 A		CN 1998-807355	19980710
DE 69826481 E		DE 1998-626481	19980710
DE 69826481 T2		DE 1998-626481	19980710
EP 998500 A1		EP 1998-932416	19980710
EP 998500 B1		EP 1998-932416	19980710
DE 69826481 E		EP 1998-932416	19980710
DE 69826481 T2		EP 1998-932416	19980710
EP 998500 A1		WO 1998-GB2037	19980710
JP 2001510862 W		WO 1998-GB2037	19980710
US 6509288 B1 Cont of		WO 1998-GB2037	19980710
EP 998500 B1		WO 1998-GB2037	19980710
DE 69826481 E		WO 1998-GB2037	19980710
DE 69826481 T2		WO 1998-GB2037	19980710
US 6509288 B1		US 1999-443896	19991119
JP 2001510862 W		JP 2000-504173	19980710
KR 2001021888 A		KR 2000-700452	20000114
CN 1151178 C		CN 1998-807355	19980710

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69826481 E	Based on	EP 998500 A
DE 69826481 T2	Based on	EP 998500 A
EP 998500 A1	Based on	WO 9905182 A
JP 2001510862 W	Based on	WO 9905182 A
EP 998500 B1	Based on	WO 9905182 A
DE 69826481 E	Based on	WO 9905182 A
DE 69826481 T2	Based on	WO 9905182 A

PRIORITY APPLN. INFO: GB 1997-15317 19970722
INT. PATENT CLASSIF.:
MAIN: C08F004-64
IPC RECLASSIF.: C08F0010-00 [I,A]; C08F0010-00 [I,C]; C08F0110-00 [N,C]; C08F0110-06 [N,A]; C08F0210-00 [N,C]; C08F0210-06 [N,A]; C08F0004-00 [I,C]; C08F0004-64 [I,A]; C08F0004-659 [N,A]; C08F0004-6592 [I,A]

BASIC ABSTRACT:
WO 1999005182 A1 UPAB: 20060115
A catalyst system for the preparation of terminally unsaturated atactic polymers or copolymers of α-olefins of mol. weight (Mn) 200-500,000, comprises a metallocene of formula (RmCpH(5-n)(RnCpH(5- n))M(Z)Y, where CpH = cyclopentadienyl ligand; each R = alkyl or aryl substituent or two R groups are joined to form a ring, or R represents a Si or C bridging linking two CpH groups, the Si or C group optionally substituted by hydrogen or 1-3C alkyl; M = hafnium, zirconium or titanium; Z =H, trifluoromethyl sulfonate, alkyl or aryl; Y = 1,3-diketone, β-ketoester or trifluoromethane sulfonate; each m and n = 0-5. Also claimed are: (1) Process for the preparation of terminally unsaturated atactic polymers of copolymers of α-olefins using the above catalyst system; and (2) Terminally unsaturated atactic polymers of copolymers of α-olefins prepared using the above catalyst system.
USE - For use in preparation of terminally unsaturated atactic polymers of copolymers of α-olefins, useful as fuel and lubricant additives, dispersants, wax modifiers and viscosity index improvers.

ADVANTAGE - The catalyst system produces (co)polymers with a range of mol. wts and high degree of terminal vinylidene unsaturation. MANUAL CODE:
CPI: A02-A06E; A04-G01A; E05-L01; E05-M; E05-N; H06-D03; H07-G06

Member(0002)
ABEQ EP 998500 A1 UPAB 20060115
A catalyst system for the preparation of terminally unsaturated atactic polymers or copolymers of α-olefins of mol. wt. (Mn) 200-500,000, comprises a metallocene of formula (RmCpH(5-n)(RnCpH(5-n))M(Z)Y, where CpH = cyclopentadienyl ligand; each R = alkyl or aryl substituent or two R groups are joined to form a ring, or R represents a Si or C bridging groups linking two CpH groups, the Si or C group optionally substituted by hydrogen or 1-3C alkyl; M = hafnium, zirconium or titanium; Z =H, trifluoromethyl sulfonate, alkyl or aryl; Y = 1,3-diketone, β-ketoester or trifluoromethane sulfonate; each m and n = 0-5. Also claimed are: (1) Process for the preparation of terminally unsaturated atactic polymers of copolymers of α-olefins using the above catalyst system; and (2) Terminally unsaturated atactic polymers of copolymers of α-olefins prepared using the above catalyst system.
USE - For use in preparation of terminally unsaturated atactic polymers of copolymers of α-olefins, useful as fuel and lubricant additives, dispersants, wax modifiers and viscosity index improvers.
ADVANTAGE - The catalyst system produces (co)polymers with a range of mol. wts and high degree of terminal vinylidene unsaturation.

Member(0003)
ABEQ CN 1264392 A UPAB 20060115
A catalyst system for the preparation of terminally unsaturated atactic polymers or copolymers of α-olefins of mol. wt. (Mn) 200-500,000, comprises a metallocene of formula (RmCpH(5-n)(RnCpH(5-n))M(Z)Y, where CpH = cyclopentadienyl ligand; each R = alkyl or aryl substituent or two R groups are joined to form a ring, or R represents a Si or C bridging groups linking two CpH groups, the Si or C group optionally substituted by hydrogen or 1-3C alkyl; M = hafnium, zirconium or titanium; Z =H, trifluoromethyl sulfonate, alkyl or aryl; Y = 1,3-diketone, β-ketoester or trifluoromethane sulfonate; each m and n = 0-5. Also claimed are: (1) Process for the preparation of terminally unsaturated atactic polymers of copolymers of α-olefins using the above catalyst system; and (2) Terminally unsaturated atactic polymers of copolymers of α-olefins prepared using the above catalyst system.
USE - For use in preparation of terminally unsaturated atactic polymers of copolymers of α-olefins, useful as fuel and lubricant additives, dispersants, wax modifiers and viscosity index improvers.
ADVANTAGE - The catalyst system produces (co)polymers with a range of mol. wts and high degree of terminal vinylidene unsaturation.

Member(0004)
ABEQ JP 2001510862 W UPAB 20060115
A catalyst system for the preparation of terminally unsaturated atactic polymers or copolymers of α-olefins of mol. wt. (Mn) 200-500,000, comprises a metallocene of formula (RmCpH(5-n)(RnCpH(5-n))M(Z)Y, where CpH = cyclopentadienyl ligand; each R = alkyl or aryl substituent or two R groups are joined to form a ring, or R represents a Si or C bridging groups linking two CpH groups, the Si or C group optionally substituted by hydrogen or 1-3C alkyl; M = hafnium, zirconium or titanium; Z =H, trifluoromethyl sulfonate, alkyl or aryl; Y = 1,3-diketone, β-ketoester or trifluoromethane sulfonate; each m and n = 0-5. Also

claimed are: (1) Process for the preparation of terminally unsaturated atactic polymers of copolymers of α-olefins using the above catalyst system; and (2) Terminally unsaturated atactic polymers of copolymers of α-olefins prepared using the above catalyst system.
USE - For use in preparation of terminally unsaturated atactic polymers of copolymers of α-olefins, useful as fuel and lubricant additives, dispersants, wax modifiers and viscosity index improvers.
ADVANTAGE - The catalyst system produces (co)polymers with a range of mol. wts and high degree of terminal vinylidene unsaturation.

L162 ANSWER 65 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1999-169817 [15] WPIX
DOC. NO. CPI: C1999-049889 [15]
TITLE: Catalyst for ethylene@* type polymerisation - comprises a solid catalyst component and a transition metal compound having a conjugated pi-electron-containing group as a ligand
DERWENT CLASS: A17; E12
INVENTOR: INASAWA S; MONOI H; TAKEMOTO Y; WAKI S
PATENT ASSIGNEE: (NIPO-N) JAPAN POLYOLEFINS CO LTD
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
JP 10251321	A	19980922	(199915)*	JA	16[1]	C08F004-657	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 10251321 A		JP 1997-57888	19970312

PRIORITY APPLN. INFO: JP 1997-57888 19970312
INT. PATENT CLASSIF.:
IPC RECLASSIF.: C08F0010-00 [I,A]; C08F0010-00 [I,C]; C08F0010-02 [I,A]; C08F0004-00 [I,C]; C08F0004-657 [I,A]; C08F0004-659 [I,A]; C08F0004-6592 [I,A]; C08F0004-69 [I,A]

BASIC ABSTRACT:
JP 10251321 A UPAB: 20050704
A catalyst for ethylene type polymerisation comprises: (A) a solid catalyst component; and (B) a transition metal cpd. having conjugated π-electron-containing gp. as a ligand.
(A) is prepared by prepolymerising (a) solid catalyst component in the presence of α-olefin. (a) comprises (a-1) a Cr cpd., (a-2) a carrier and (a-3) aluminoxane.
USE - The obtd. polymer is suitable for inflation film moulding and hollow moulding.
ADVANTAGE - The polymer has a broad distribution of molecular weight, a large melt tension and only slight gel fish eye. MANUAL CODE: CPI: A02-A06; A02-A07A; A02-D; A04-G01A; A06-D01; A12-W11K; E05-B02; E05-L03A; E05-M; E31-P03

L162 ANSWER 66 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1998-439310 [38] WPIX
DOC. NO. CPI: C1998-133618 [38]
TITLE: Graft copolymer for composite materials and heat-resistant elastomer - comprises styrene-based

monomer and a terminal styrene derivative-modified olefin-based macromer having a high degree of syndiotacticity
DERWENT CLASS: A13; E12
INVENTOR: TEJIMA H; TESHIMA H
PATENT ASSIGNEE: (IDEM-C) IDEMITSU PETROCHEM CO LTD; (IDEM-C) IDEMITSU SEKIYU KAGAKU KK
COUNTRY COUNT: 28

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
EP 860456	A1	19980826	(199838)*	EN	23	C08F290-04	<--
JP 10237139	A	19980908	(199846)	JA	13	C08F290-12	<--
JP 10237242	A	19980908	(199846)	JA	6	C08L023-26	<--
JP 10292076	A	19981104	(199903)	JA	16	C08L025-00	<--
KR 98071545	A	19981026	(199953)	KO		C08F212-08	<--
US 6100331	A	20000808	(200040)	EN		C08L051-00	<--
TW 513446	A	20021211	(200353)	ZH		C08F257-02	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 860456 A1		EP 1998-102758	19980218
JP 10237139 A		JP 1997-37959	19970221
JP 10237242 A		JP 1997-37961	19970221
JP 10292076 A		JP 1998-14094	19980127
TW 513446 A		TW 1998-101395	19980204
US 6100331 A		US 1998-25850	19980219
KR 98071545 A		KR 1998-5317	19980220

PRIORITY APPLN. INFO: JP 1997-37959 19970221
JP 1997-37960 19970221
JP 1997-37961 19970221
INT. PATENT CLASSIF.:
MAIN: C08F212-08; C08F257-02
IPC RECLASSIF.: C08F0212-00 [I,C]; C08F0212-08 [I,A]; C08F0255-00 [I,A]; C08F0255-00 [I,C]; C08F0290-00 [I,C]; C08F0290-00 [I,C]; C08F0290-04 [I,A]; C08F0290-12 [I,A]; C08L0023-00 [I,C]; C08L0023-26 [I,A]; C08L0025-00 [I,A]; C08L0025-00 [I,C]; C08L0025-00 [I,C]; C08L0025-04 [I,A]; C08L0051-00 [I,C]; C08L0051-06 [I,A]

BASIC ABSTRACT:
EP 860456 A1 UPAB: 20060114
A graft copolymer (A+B) of a styrene-based monomer (A) and a terminal styrene derivative-modified olefin-based macromer (B) of formula (I), has a high degree of syndiotacticity for the stereospecificity of the chains derived from the styrene-based monomer:
R = H, or 1-12C alkyl gp;
X = H, halogen or a substituent having carbon, tin and/or silicon atoms;
n = 1-4 and when n is 2 or more, X's may be the same or different;
m = 0 or a natural number; and
Z = chain moiety derived from an olefin-based monomer.
Also claimed are:
(i) a method of producing a graft copolymer which comprises dissolving a terminal styrene derivative-modified olefin-based macromer (B) of formula (I) in a styrene-based monomer (A) or in a solvent contg a styrene-based monomer

(A), followed by copolymerising (A) and (B) in the presence of a catalyst comprising:
(a) a transition metal cpd; and
(b) (i) an oxygen -contg cpd of formula (II):
R1-(Y1(R2)-O)a-(Y2(R3)-O)b-Y3(R4)-R5 (II)
R1-R5 = 1 - 8 C alkyl gp;
Y1-Y3 = element of Gp 13; and
a, b = 0-50, provided that
a+b = 1 or more;
and/or formula (III):
R6, R7 = 1 - 8 C alkyl gp;
Y4, Y5 = element of Gp 13; and
c, d = 0-50; provided that
c+d is 1 or more;
(ii) a method similar to (i) which additionally includes in (II) (ii) a cpd capable of reacting with the transition metal cpd of the component (a) to form an ionic complex; and
(c) an alkylating agent.
USE - Useful as component parts for composite materials and also as heat-resistant elastomers.
ADVANTAGE - The materials have high heat resistance, high chemical resistance, high stiffness and improved miscibility with various resins. MANUAL CODE: CPI: A02-AD6C; A04-CO1; A10-CO1; E05-B02; E05-C; E05-D; E05-E; E05-G; E05-H; E05-L; E05-M; E05-W; E10-B04; E10-J02B4

Member(0002)
ABEQ JP 10237139 A UPAB 20060114
A graft copolymer (A+B) of a styrene-based monomer (A) and a terminal styrene derivative-modified olefin-based macromer (B) of formula (I), has a high degree of syndiotacticity for the stereospecificity of the chains derived from the styrene-based monomer:
R = H, or 1-12C alkyl gp;
X = H, halogen or a substituent having carbon, tin and/or silicon atoms;
n = 1-4 and when n is 2 or more, X's may be the same or different;
m = 0 or a natural number; and
Z = chain moiety derived from an olefin-based monomer.
Also claimed are:
(i) a method of producing a graft copolymer which comprises dissolving a terminal styrene derivative-modified olefin-based macromer (B) of formula (I) in a styrene-based monomer (A) or in a solvent contg a styrene-based monomer (A), followed by copolymerising (A) and (B) in the presence of a catalyst comprising:
(a) a transition metal cpd; and
(b) (i) an oxygen -contg cpd of formula (II):
R1-(Y1(R2)-O)a-(Y2(R3)-O)b-Y3(R4)-R5 (II)
R1-R5 = 1 - 8 C alkyl gp;
Y1-Y3 = element of Gp 13; and
a, b = 0-50, provided that
a+b = 1 or more;
and/or formula (III):
R6, R7 = 1 - 8 C alkyl gp;
Y4, Y5 = element of Gp 13; and
c, d = 0-50; provided that
c+d is 1 or more;
(ii) a method similar to (i) which additionally includes in (II) (ii) a cpd capable of reacting with the transition metal cpd of the component (a) to form an ionic complex; and
(c) an alkylating agent.
USE - Useful as component parts for composite materials and also as

heat-resistant elastomers.
ADVANTAGE - The materials have high heat resistance, high chemical resistance, high stiffness and improved miscibility with various resins.

Member(0003)
ABEQ JP 10237242 A UPAB 20060114
A graft copolymer (A+B) of a styrene-based monomer (A) and a terminal styrene derivative-modified olefin-based macromer (B) of formula (I), has a high degree of syndiotacticity for the stereospecificity of the chains derived from the styrene-based monomer:
R = H, or 1-12C alkyl gp;
X = H, halogen or a substituent having carbon, tin and/or silicon atoms;
n = 1-4 and when n is 2 or more, X's may be the same or different;
m = 0 or a natural number; and
Z = chain moiety derived from an olefin-based monomer.
Also claimed are:
(i) a method of producing a graft copolymer which comprises dissolving a terminal styrene derivative-modified olefin-based macromer (B) of formula (I) in a styrene-based monomer (A) or in a solvent contg a styrene-based monomer (A), followed by copolymerising (A) and (B) in the presence of a catalyst comprising:
(a) a transition metal cpd; and
(b) (i) an oxygen -contg cpd of formula (II):
R1-(Y1(R2)-O)a-(Y2(R3)-O)b-Y3(R4)-R5 (II)
R1-R5 = 1 - 8 C alkyl gp;
Y1-Y3 = element of Gp 13; and
a, b = 0-50, provided that
a+b = 1 or more;
and/or formula (III):
R6, R7 = 1 - 8 C alkyl gp;
Y4, Y5 = element of Gp 13; and
c, d = 0-50; provided that
c+d is 1 or more;
(ii) a method similar to (i) which additionally includes in (II) (ii) a cpd capable of reacting with the transition metal cpd of the component (a) to form an ionic complex; and
(c) an alkylating agent.
USE - Useful as component parts for composite materials and also as heat-resistant elastomers.
ADVANTAGE - The materials have high heat resistance, high chemical resistance, high stiffness and improved miscibility with various resins.

Member(0004)
ABEQ JP 10292076 A UPAB 20060114
A graft copolymer (A+B) of a styrene-based monomer (A) and a terminal styrene derivative-modified olefin-based macromer (B) of formula (I), has a high degree of syndiotacticity for the stereospecificity of the chains derived from the styrene-based monomer:
R = H, or 1-12C alkyl gp;
X = H, halogen or a substituent having carbon, tin and/or silicon atoms;
n = 1-4 and when n is 2 or more, X's may be the same or different;
m = 0 or a natural number; and
Z = chain moiety derived from an olefin-based monomer.
Also claimed are:
(i) a method of producing a graft copolymer which comprises dissolving a terminal styrene derivative-modified olefin-based macromer (B) of formula (I) in a styrene-based monomer (A) or in a solvent contg a styrene-based monomer (A), followed by copolymerising (A) and (B) in the presence of a catalyst comprising:
(a) a transition metal cpd; and

(b) (i) an oxygen -contg cpd of formula (II):
R1-(Y1(R2)-O)a-(Y2(R3)-O)b-Y3(R4)-R5 (II)
R1-R5 = 1 - 8 C alkyl gp;
Y1-Y3 = element of Gp 13; and
a, b = 0-50, provided that
a+b = 1 or more;
and/or formula (III):
R6, R7 = 1 - 8 C alkyl gp;
Y4, Y5 = element of Gp 13; and
c, d = 0-50; provided that
c+d is 1 or more;
(ii) a method similar to (i) which additionally includes in (II) (ii) a cpd capable of reacting with the transition metal cpd of the component (a) to form an ionic complex; and
(c) an alkylating agent.
USE - Useful as component parts for composite materials and also as heat-resistant elastomers.
ADVANTAGE - The materials have high heat resistance, high chemical resistance, high stiffness and improved miscibility with various resins.

Member(0006)
ABEQ US 6100331 A UPAB 20060114
A graft copolymer (A+B) of a styrene-based monomer (A) and a terminal styrene derivative-modified olefin-based macromer (B) of formula (I), has a high degree of syndiotacticity for the stereospecificity of the chains derived from the styrene-based monomer:
R = H, or 1-12C alkyl gp;
X = H, halogen or a substituent having carbon, tin and/or silicon atoms;
n = 1-4 and when n is 2 or more, X's may be the same or different;
m = 0 or a natural number; and
Z = chain moiety derived from an olefin-based monomer.
Also claimed are:
(i) a method of producing a graft copolymer which comprises dissolving a terminal styrene derivative-modified olefin-based macromer (B) of formula (I) in a styrene-based monomer (A) or in a solvent contg a styrene-based monomer (A), followed by copolymerising (A) and (B) in the presence of a catalyst comprising:
(a) a transition metal cpd; and
(b) (i) an oxygen -contg cpd of formula (II):
R1-(Y1(R2)-O)a-(Y2(R3)-O)b-Y3(R4)-R5 (II)
R1-R5 = 1 - 8 C alkyl gp;
Y1-Y3 = element of Gp 13; and
a, b = 0-50, provided that
a+b = 1 or more;
and/or formula (III):
R6, R7 = 1 - 8 C alkyl gp;
Y4, Y5 = element of Gp 13; and
c, d = 0-50; provided that
c+d is 1 or more;
(ii) a method similar to (i) which additionally includes in (II) (ii) a cpd capable of reacting with the transition metal cpd of the component (a) to form an ionic complex; and
(c) an alkylating agent.
USE - Useful as component parts for composite materials and also as heat-resistant elastomers.
ADVANTAGE - The materials have high heat resistance, high chemical resistance, high stiffness and improved miscibility with various resins.

L162 ANSWER 67 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1997-034295 [03] WPIX

DOC. NO. CPI: C1997-010721 [03]
TITLE: Metallocene cpd. useful as olefin polymerisation catalysts - prepared by reacting bis:indene cpd. with cpd. capable of forming de-localised anion on cyclo:penta:di:enyl ring and then with halide, e.g. titanium tetra:chloride, etc., giving uniform distribution of co:monomers and low ash content
DERWENT CLASS: A17; E19
INVENTOR: BARBASSA E; DUBITSKY Y A; ERNST R; NIFANT'EV I E; NIFANTEV I E; RESCONI L; SCHAVERIEN C J
PATENT ASSIGNEE: (BASE-C) BASELL TECHNOLOGY CO BV; (MONT-C) MONTELL ITAL SPA; (MONT-C) MONTELL TECHNOLOGY CO BV; (SPHE-N) SPHERILENE SPA
COUNTRY COUNT: 22

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 9638458	A1	19961205	(199703)*	EN	72[0]	C07F017-00	<--
IT 1275408	B	19970805	(199824)	IT		C07F000-00	<--
EP 846122	A1	19980610	(199827)	EN		C07F017-00	<--
JP 11505860	W	19990525	(199931)	JA	59	C07F017-00	<--
EP 846122	B1	20000705	(200035)	EN		C07F017-00	<--
DE 69609186	E	20000810	(200045)	DE		C07F017-00	<--
US 6369254	B1	20020409	(200227)	EN		C08F004-64	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9638458 A1		WO 1996-EP2307	19960529
IT 1275408 B		IT 1995-MI1118	19950530
DE 69609186 E		DE 1996-69609186	19960529
EP 846122 A1		EP 1996-918640	19960529
EP 846122 B1		EP 1996-918640	19960529
DE 69609186 E		EP 1996-918640	19960529
JP 11505860 W		JP 1996-536183	19960529
EP 846122 A1		WO 1996-EP2307	19960529
JP 11505860 W		WO 1996-EP2307	19960529
EP 846122 B1		WO 1996-EP2307	19960529
DE 69609186 E		WO 1996-EP2307	19960529
US 6369254 B1		US 1996-655729	19960530

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69609186 E	Based on	EP 846122 A
EP 846122 A1	Based on	WO 9638458 A
JP 11505860 W	Based on	WO 9638458 A
EP 846122 B1	Based on	WO 9638458 A
DE 69609186 E	Based on	WO 9638458 A

PRIORITY APPLN. INFO: IT 1995-MI1118 19950530
INT. PATENT CLASSIF.:
MAIN: C07F017-00
IPC RECLASSIF.: C07C0013-00 [I,C]; C07C0013-465 [I,A]; C07C0013-567 [I,A]; C07F0017-00 [I,A]; C07F0017-00 [I,C]; C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-30 [I,A]; C07F0009-00 [I,C]

; C07F0009-50 [I,A]; C08F0010-00 [I,A]; C08F0010-00 [I,C]
; C08F0210-00 [N,C]; C08F0210-16 [N,A]; C08F0210-18 [N,A]
; C08F0004-00 [I,C]; C08F0004-64 [I,A]; C08F0004-642 [I,A]; C08F0004-655 [I,A]; C08F0004-659 [N,A]; C08F0004-6592 [N,A]; C08F0004-68 [I,A]; C08F0004-69 [I,A]

BASIC ABSTRACT:

WO 1996038458 A1 UPAB: 20050702

A metallocene cpd. of formula (I) is claimed, where R1 is a divalent gp. selected from CR42, C2R42, SiR42, Si2R44, GeR42, Ge2R44, R2SiCR42, NR4 or PR4 in which each R4 are H, 1-20C alkyl, 3-20C cycloalkyl, 2-20C alkenyl, 6-20C aryl, 7-20C aralkyl or alkaryl, radicals and can contain Si or Ge atoms, or when R1 is CR42, C2R44, SiR42, Si2R44, GeR42, Ge2R44 or R42SiCR42, two or four substits. R4 can form one or two 2-6C rings; each R2 and R3 are as R4 above, and in addition, R2 and R3 substits. on the same indenyl can form a 4-8C ring; M is a Group III, IV, V or VI transition metal or a lanthanide or actinide; and each X is H, halogen or R, OR, SR, NR2 or PR2 gps. where R is as R4.

Also claimed are: (I) a cpd. of formula (II) and its double bond isomers, where R1, R2 and R3 are as above; (2) processes (A+B) for the preparation of cpd. (II) where at least one substit. R2 is different form a H atom; (3) a catalyst for the polymerisation of olefins; and (4) processes for the polymerisation of olefins using the above catalyst.

USE - (II) is used as an intermediate for the preparation of (I). The catalyst is used for olefin polymerisation, especially copolymerisation of ethylene with a 3-12C α-olefin, e.g. propylene, and a minor proportion of polyene such as 5-ethylidene-2-norbornene to form an elastomer.

ADVANTAGE - The obtd. prod. has uniform distribution of comonomers and low ash content.

MANUAL CODE: CPI: A02-A06E; A02-A07A; A04-G01A; A06-D01; A12-W11K; E05-E01; E05-F02; E05-M

Member(0003)

ABEQ EP 846122 A1 UPAB 20050702

A metallocene cpd. of formula (I) is claimed, where R1 is a divalent gp. selected from CR42, C2R42, SiR42, Si2R44, GeR42, Ge2R44, R2SiCR42, NR4 or PR4 in which each R4 are H, 1-20C alkyl, 3-20C cycloalkyl, 2-20C alkenyl, 6-20C aryl, 7-20C aralkyl or alkaryl, radicals and can contain Si or Ge atoms, or when R1 is CR42, C2R44, SiR42, Si2R44, GeR42, Ge2R44 or R42SiCR42, two or four substits. R4 can form one or two 2-6C rings; each R2 and R3 are as R4 above, and in addn., R2 and R3 substits. on the same indenyl can form a 4-8C ring; M is a Group III, IV, V or VI transition metal or a lanthanide or actinide; and each X is H, halogen or R, OR, SR, NR2 or PR2 gps. where R is as R4.

Also claimed are: (1) a cpd. of formula (II) and its double bond isomers, where R1, R2 and R3 are as above; (2) processes (A+B) for the prepn. of cpd. (II) where at least one substit. R2 is different form a H atom; (3) a catalyst for the polymerisation of olefins; and (4) processes for the polymerisation of olefins using the above catalyst.

USE - (II) is used as an intermediate for the prepn. of (I). The catalyst is used for olefin polymerisation, esp. copolymerisation of ethylene with a 3-12C α-olefin, e.g. propylene, and a minor proportion of polyene such as 5-ethylidene-2-norbornene to form an elastomer.

ADVANTAGE - The obtd. prod. has uniform distribution of comonomers and low ash content.

Member(0004)

ABEQ JP 11505860 W UPAB 20050702

A metallocene cpd. of formula (I) is claimed, where R1 is a divalent gp. selected from CR42, C2R42, SiR42, Si2R44, GeR42, Ge2R44, R2SiCR42, NR4 or PR4 in which each R4 are H, 1-20C alkyl, 3-20C cycloalkyl, 2-20C alkenyl,

6-20C aryl, 7-20C aralkyl or alkaryl, radicals and can contain Si or Ge atoms, or when R1 is CR42, C2R44, SiR42, Si2R44, GeR42, Ge2R44 or R42SiCR42, two or four substits. R4 can form one or two 2-6C rings; each R2 and R3 are as R4 above, and in addn., R2 and R3 substits. on the same indenyl can form a 4-8C ring; M is a Group III, IV, V or VI transition metal or a lanthanide or actinide; and each X is H, halogen or R, OR, SR, NR2 or PR2 gps. where R is as R4.

Also claimed are: (1) a cpd. of formula (II) and its double bond isomers, where R1, R2 and R3 are as above; (2) processes (A+B) for the prepn. of cpd. (II) where at least one substit. R2 is different form a H atom; (3) a catalyst for the polymerisation of olefins; and (4) processes for the polymerisation of olefins using the above catalyst.

USE - (II) is used as an intermediate for the prepn. of (I). The catalyst is used for olefin polymerisation, esp. copolymerisation of ethylene with a 3-12C α-olefin, e.g. propylene, and a minor proportion of polyene such as 5-ethylidene-2-norbornene to form an elastomer.

ADVANTAGE - The obtd. prod. has uniform distribution of comonomers and low ash content.

Member(0005)

ABEQ EP 846122 B1 UPAB 20050702

A metallocene cpd. of formula (I) is claimed, where R1 is a divalent gp. selected from CR42, C2R42, SiR42, Si2R44, GeR42, Ge2R44, R2SiCR42, NR4 or PR4 in which each R4 are H, 1-20C alkyl, 3-20C cycloalkyl, 2-20C alkenyl, 6-20C aryl, 7-20C aralkyl or alkaryl, radicals and can contain Si or Ge atoms, or when R1 is CR42, C2R44, SiR42, Si2R44, GeR42, Ge2R44 or R42SiCR42, two or four substits. R4 can form one or two 2-6C rings; each R2 and R3 are as R4 above, and in addn., R2 and R3 substits. on the same indenyl can form a 4-8C ring; M is a Group III, IV, V or VI transition metal or a lanthanide or actinide; and each X is H, halogen or R, OR, SR, NR2 or PR2 gps. where R is as R4.

Also claimed are: (1) a cpd. of formula (II) and its double bond isomers, where R1, R2 and R3 are as above; (2) processes (A+B) for the prepn. of cpd. (II) where at least one substit. R2 is different form a H atom; (3) a catalyst for the polymerisation of olefins; and (4) processes for the polymerisation of olefins using the above catalyst.

USE - (II) is used as an intermediate for the prepn. of (I). The catalyst is used for olefin polymerisation, esp. copolymerisation of ethylene with a 3-12C α-olefin, e.g. propylene, and a minor proportion of polyene such as 5-ethylidene-2-norbornene to form an elastomer.

ADVANTAGE - The obtd. prod. has uniform distribution of comonomers and low ash content.

L162 ANSWER 68 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1995-226200 [30] WPIX

CROSS REFERENCE: 1995-225470; 1995-233280

DOC. NO. CPI: C1995-104099 [30]

TITLE: Stereo-rigid metallocenes useful in catalyst for cyclo-olefin copolymer production - especially zirconocenes, contain at least two cyclo-penta-di:enyl ligands joined by and at least partly annelated with ring system

DERWENT CLASS: A17; A60; E11; E12

INVENTOR: AULBACH M; AULBACK M; BACHMANN B; ERKER G; HERRMANN H; KUBER F; KUEBER F; OSAN F; PSIORZ C; WELLER D T; WELLER T

PATENT ASSIGNEE: (FARH-C) HOECHST AG; (TARG-C) TARGOR GMBH; (TICN-C) TICONA GMBH

COUNTRY COUNT: 28

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
EP 659758	A1	19950628	(199530)*	DE	43[0]	C07F017-00	<--
DE 4344631	A1	19950629	(199531)	DE	18[0]	C08F032-08	<--
AU 9481654	A	19950629	(199533)	EN		C07F017-00	<--
NO 9404949	A	19950622	(199534)	NO		C08F004-60	<--
CA 2138723	A	19950622	(199538)	EN		C07F017-00	<--
FI 9405959	A	19950622	(199538)	FI		C08F004-42	<--
BR 9405204	A	19950801	(199544)	PT		C07F017-00	<--
ZA 9410172	A	19950927	(199544)	EN	83[0]	C07F000-00	<--
JP 07292020	A	19951107	(199602)	JA	36[0]	C08F004-642	<--
DE 4432617	A1	19960321	(199617)	DE	25[0]	C07F017-00	<--
CZ 9403249	A3	19960417	(199623)	CS		C07F017-00	<--
TW 272204	A	19960311	(199625)	ZH		C08F004-64	<--
HU 70864	T	19951128	(199733)	HU		C08F032-08	<--
CN 1112564	A	19951129	(199738)	ZH		C07F017-00	<--
US 5710297	A	19980120	(199810)	EN	28[0]	C07F017-00	<--
AU 687927	B	19980305	(199820)	EN		C07F017-00	<--
EP 659758	B1	19981118	(199850)	DE		C08F010-00	<--
DE 59407303	G	19981224	(199906)	DE		C08F010-00	<--
ES 2123701	T3	19990116	(199909)	ES		C08F010-00	<--
US 5990254	A	19991123	(200002)	EN		C08F232-04	<--
CN 1235172	A	19991117	(200013)	ZH		C08F232-06	<--
NO 307520	B1	20000417	(200026)	NO		C08F004-60	<--
RU 2154067	C2	20000810	(200066)	RU		C07F017-00	<--
MX 194935	B	20000114	(200115)	ES		C08F010-000	<--
HU 220638	B1	20020328	(200234)	HU		C08F032-08	<--
JP 3493387	B2	20040203	(200410)	JA	36	C07F017-00	
CN 1056148	C	20000906	(200471)	ZH		C07F017-00	<--
CA 2138723	C	20050726	(200551)	EN		C07F017-00	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 659758 A1		EP 1994-120162	19941220
DE 4344631 A1		DE 1993-4344631	19931224
TW 272204 A		TW 1994-101154	19940215
DE 4432617 A1		DE 1994-4432617	19940914
FI 9405959 A		FI 1994-5959	19941219
CZ 9403249 A3		CZ 1994-3249	19941220
DE 59407303 G		DE 1994-59407303	19941220
EP 659758 B1		EP 1994-120162	19941220
DE 59407303 G		EP 1994-120162	19941220
ES 2123701 T3		EP 1994-120162	19941220
NO 9404949 A		NO 1994-4949	19941220
NO 307520 B1		NO 1994-4949	19941220
AU 9481654 A		AU 1994-81654	19941221
AU 687927 B		AU 1994-81654	19941221
BR 9405204 A		BR 1994-5204	19941221
CA 2138723 A		CA 1994-2138723	19941221
CA 2138723 C		CA 1994-2138723	19941221
CN 1112564 A		CN 1994-120496	19941221
CN 1235172 A	Div Ex	CN 1994-120496	19941221
CN 1056148 C		CN 1994-120496	19941221
HU 70864 T		HU 1994-3703	19941221
HU 220638 B1		HU 1994-3703	19941221
JP 07292020 A		JP 1994-340786	19941221

JP 3493387 B2		JP 1994-340786 19941221
RU 2154067 C2		RU 1994-44531 19941221
US 5710297 A	Cont of	US 1994-361423 19941221
US 5990254 A	Cont of	US 1994-361423 19941221
ZA 9410172 A		ZA 1994-10172 19941221
MX 194935 B		MX 1995-219 19950102
US 5710297 A		US 1996-712681 19960913
US 5990254 A	Div Ex	US 1996-712681 19960913
US 5990254 A		US 1996-780179 19961226
CN 1235172 A		CN 1999-105162 19941221

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 687927 B	Previous Publ	AU 9481654 A
DE 59407303 G	Based on	EP 659758 A
ES 2123701 T3	Based on	EP 659758 A
HU 220638 B1	Previous Publ	HU 70864 T
JP 3493387 B2	Previous Publ	JP 07292020 A
NO 307520 B1	Previous Publ	NO 9404949 A
US 5990254 A	Div ex	US 5710297 A

PRIORITY APPLN. INFO: DE 1994-4432617 19940914
DE 1993-4343566 19931221
DE 1993-4344631 19931224

INT. PATENT CLASSIF.:

MAIN: C08F010-00; C08F010-000; C08F004-64

IPC RECLASSIF.: B01J0031-06 [I,A]; B01J0031-06 [I,C]; B01J0031-16 [I,C]; B01J0031-22 [I,A]; C07F0017-00 [I,A]; C07F0017-00 [I,C]

SECONDARY: C07F017-000 ; C08F0010-00 [I,A]; C08F0010-00 [I,C]; C08F0110-00 [N,C]; C08F0110-02 [N,A]; C08F0110-06 [N,A]; C08F0210-00 [N,C]; C08F0210-16 [N,A]; C08F0210-18 [N,A]; C08F0032-00 [I,C]; C08F0032-04 [I,A]; C08F0032-08 [I,A]; C08F0004-00 [I,C]; C08F0004-00 [N,C]; C08F0004-42 [I,A]; C08F0004-60 [I,A]; C08F0004-60 [I,A]; C08F0004-602 [I,A]; C08F0004-606 [I,A]; C08F0004-619 [N,A]; C08F0004-6192 [N,A]; C08F0004-642 [I,A]; C08F0004-659 [N,A]; C08F0004-6592 [I,A]; C08F0004-6592 [N,A]; C08F0004-76 [I,A]; C08J0005-00 [I,A]; C08J0005-00 [I,C]

BASIC ABSTRACT:

EP 659758 A1 UPAB: 20060109

Stereo-rigid metallocenes (I) containing at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6- trimethyl--(eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components containing supported and/or prepolymerised (I); the production of a cycloolefin copolymer (II) in the presence of a catalyst containing cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys containing (II); mouldings containing (II) or the polymer alloy; and the use of (I) in the production of (II).

USE - (I) and the catalyst systems are useful in the production of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.

ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength. MANUAL CODE: CPI: A02-A06E; A02-A06E1; A04-G; E05-E01; E05-F02 ; E05-G; E05-G02; E05-G03B; E05-L;

E05-M; E05-M; E05-P

Member(0002)
ABEQ DE 4344631 A1 UPAB 20060109
Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- -(eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).
USE - (I) and the catalyst systems are useful in the prodn. of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.
ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

Member(0008)
ABEQ ZA 9410172 A UPAB 20060109
Stereo-rigid metallocenes (Mc) contain at least two opt. substd. cyclopentadienyl (Cp) ligands linked together via a mono- or poly-cyclic ring system which forms a condensed ring system with at least one of the Cp gps..
Also claimed are (i) a supported and/or prepolymerised catalyst component contg. Mc; and (ii) a process for the prodn. of polyolefins by (co)polymerisation of olefins in presence of a catalyst contg. Mc cpd(s)..
USE - Used as a catalyst component for (co)polymerisation of olefins.
ADVANTAGE - Enables prodn. of polyolefins with reduced crystallinity, increased impact strength and transparency, high flow at processing temps., low molecular wt. and reduced m.pt..

Member(0009)
ABEQ JP 07292020 A UPAB 20060109
Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- -(eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).
USE - (I) and the catalyst systems are useful in the prodn. of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.
ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

Member(0010)
ABEQ DE 4432617 A1 UPAB 20060109
Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- -(eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are

excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).
USE - (I) and the catalyst systems are useful in the prodn. of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.
ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

Member(0015)
ABEQ US 5710297 A UPAB 20060109
Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- -(eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).
USE - (I) and the catalyst systems are useful in the prodn. of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.
ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

Member(0017)
ABEQ EP 659758 B1 UPAB 20060109
Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- -(eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).
USE - (I) and the catalyst systems are useful in the prodn. of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.
ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

Member(0020)
ABEQ US 5990254 A UPAB 20060109
Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- -(eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).
USE - (I) and the catalyst systems are useful in the prodn. of

copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.
ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

Member(0021)
ABEQ CN 1235172 A UPAB 20060109
Stereo-rigid metallocenes (I) contg. at least 2 opt. substd. cyclopentadienyl ligands, joined by a mono- or polycyclic ring system, in which at least one cyclopentadienyl gp. is annelated to this ring system, are new. Metallocenes with a 4-(eta5-3'-alkyl-cyclopentadienyl)-4,6,6-trimethyl- -(eta5-2-alkyl-4,5-tetrahydropentalene) ligand system are excluded. Also claimed are catalyst components contg. supported and/or prepolymerised (I); the prodn. of a cycloolefin copolymer (II) in the presence of a catalyst contg. cpd(s). (I) and cocatalyst(s) (III); (II) pe se; polymer alloys contg. (II); mouldings contg. (II) or the polymer alloy; and the use of (I) in the prodn. of (II).
USE - (I) and the catalyst systems are useful in the prodn. of copolymers from polycyclic olefin(s), acyclic 1-olefin(s) and opt. monocyclic olefin(s) (claimed), e.g. from norbornene and ethylene.
ADVANTAGE - (I) have high catalytic activity and give transparent copolymers with high tensile strength.

L162 ANSWER 69 OF 71 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1995-076314 [11] WPIX
DOC. NO. CPI: C1995-033919 [11]
TITLE: High activity olefin* polymerisation catalyst for ethylene@* polymer - comprises metallocene cpd., organo-aluminium oxy cpd., carbonyl-containing cpd. and opt. organo-aluminium cpd. for ethylene@*-olefin* copolymer
DERWENT CLASS: A17; A60; E12
INVENTOR: KANI T; TSUTSUI T; YOSHIJI T; YOSHITSUGU K; YOSHIZUGI K
PATENT ASSIGNEE: (MITA-C) MITSUI CHEM INC; (MITC-C) MITSUI PETROCHEM IND CO LTD; (MITC-C) MITSUI PETROCHEMICAL IND LTD
COUNTRY COUNT: 10

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
EP 638595	A2	19950215	(199511)*	EN	27[2]	C08F010-00	<--
JP 07053619	A	19950228	(199517)	JA	10	C08F004-642	<--
JP 07053620	A	19950228	(199517)	JA	16	C08F004-642	<--
CA 2129794	A	19950211	(199518)	EN		C08F004-649	<--
EP 638595	A3	19950426	(199545)	EN		C08F010-00	<--
US 5539069	A	19960723	(199635)	EN	19[2]	C08F004-649	<--
US 5543377	A	19960806	(199637)	EN	19[2]	C08F004-649	<--
CN 1100429	A	19950322	(199723)	ZH		C08F010-00	<--
EP 638595	B1	19981014	(199845)	EN		C08F010-00	<--
DE 69413904	E	19981119	(199901)	DE		C08F010-00	<--
KR 312700	B	20011228	(200252)	KO		C08F010-00	<--
JP 3465309	B2	20031110	(200377)	JA	10	C08F004-649	
JP 3465310	B2	20031110	(200377)	JA	16	C08F004-649	
CN 1048502	C	20000119	(200464)	ZH		C08F004-649	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 638595 A2		EP 1994-305923	19940810

JP 07053619 A		JP 1993-198609 19930810
JP 3465309 B2		JP 1993-198609 19930810
JP 07053620 A		JP 1993-198610 19930810
JP 3465310 B2		JP 1993-198610 19930810
CA 2129794 A		CA 1994-2129794 19940809
US 5539069 A		US 1994-287799 19940809
US 5543377 A Div Ex		US 1994-287799 19940809
CN 1100429 A		CN 1994-109080 19940810
CN 1048502 C		CN 1994-109080 19940810
DE 69413904 E		DE 1994-69413904 19940810
EP 638595 A3		EP 1994-305923 19940810
EP 638595 B1		EP 1994-305923 19940810
DE 69413904 E		EP 1994-305923 19940810
KR 312700 B		KR 1994-19750 19940810
US 5543377 A		US 1995-456805 19950601

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69413904 E	Based on	EP 638595 A
JP 3465309 B2	Previous Publ	JP 07053619 A
JP 3465310 B2	Previous Publ	JP 07053620 A
KR 312700 B	Previous Publ	KR 95005853 A

PRIORITY APPLN. INFO: JP 1993-198609 19930810
JP 1993-198610 19930810

INT. PATENT CLASSIF.:
MAIN: C08F010-00
IPC RECLASSIF.: C08F0010-00 [I,A]; C08F0010-00 [I,A]; C08F0010-00 [I,C]; C08F0010-00 [I,C]; C08F0210-00 [I,C]; C08F0210-00 [N,C]; C08F0210-16 [I,A]; C08F0210-16 [N,A]; C08F0004-00 [I,C]; C08F0004-00 [N,C]; C08F0004-60 [I,A]
SECONDARY: C08F004-64 [I,A]; C08F0004-649 [I,A]; C08F0004-655 [I,A]; C08F0004-659 [N,A]; C08F0004-6592 [I,A]; C08F0004-6592 [N,A]
; C08F0004-642

BASIC ABSTRACT:
EP 638595 A2 UPAB: 20060109
An olefin polymerisation catalyst comprises:
(a) a cpd. of a gp. IVB transition metal containing a ligand with a cyclopentadienyl skeleton;
(b) an organoaluminium oxy cpd. and
(c) one or more carbonyl-containing comprising keto-alcohols and/or beta-diketones.
Also claimed are
(1) a solid olefin polymerisation catalyst comprising
(i) the pref. catalyst (below) and
(ii) an organoaluminium cpd; and
(2) a process comprising polymerising an olefin in the presence of the above catalyst.
USE - The catalyst is used to make, e.g. ethylene homopolymers or ethylene/olefin copolymers.
ADVANTAGE - The catalyst has excellent activity per unit weight and can give polymers of high mol. weight as particles of uniform size with very few fines.
MANUAL CODE: CPI: A02-A06E1; A02-A07A; A04-G01A; A06-D; A12-W11K; E05-B02; E05-B03; E05-C01; E05-M; E05-N ; E10-E04M2; E10-F02C

Member(0002)

ABEQ JP 07053619 A UPAB 20060109
An olefin polymerisation catalyst comprises:
(a) a cpd. of a gp. IVB transition metal contg. a ligand with a cyclopentadienyl skeleton;
(b) an organoaluminium oxy cpd. and
(c) one or more carbonyl-contg. comprising keto-alcohols and/or beta-diketones.
Also claimed are
(1) a solid olefin polymerisation catalyst comprising
(i) the pref. catalyst (below) and
(ii) an organoaluminium cpd; and
(2) a process comprising polymerising an olefin in the presence of the above catalyst.
USE - The catalyst is used to make, e.g. ethylene homopolymers or ethylene/olefin copolymers.
ADVANTAGE - The catalyst has excellent activity per unit wt. and can give polymers of high mol. wt. as particles of uniform size with very few fines.

Member(0003)
ABEQ JP 07053620 A UPAB 20060109
An olefin polymerisation catalyst comprises:
(a) a cpd. of a gp. IVB transition metal contg. a ligand with a cyclopentadienyl skeleton;
(b) an organoaluminium oxy cpd. and
(c) one or more carbonyl-contg. comprising keto-alcohols and/or beta-diketones.
Also claimed are
(1) a solid olefin polymerisation catalyst comprising
(i) the pref. catalyst (below) and
(ii) an organoaluminium cpd; and
(2) a process comprising polymerising an olefin in the presence of the above catalyst.
USE - The catalyst is used to make, e.g. ethylene homopolymers or ethylene/olefin copolymers.
ADVANTAGE - The catalyst has excellent activity per unit wt. and can give polymers of high mol. wt. as particles of uniform size with very few fines.

Member(0009)
ABEQ EP 638595 B1 UPAB 20060109
An olefin polymerisation catalyst comprises:
(a) a cpd. of a gp. IVB transition metal contg. a ligand with a cyclopentadienyl skeleton;
(b) an organoaluminium oxy cpd. and
(c) one or more carbonyl-contg. comprising keto-alcohols and/or beta-diketones.
Also claimed are
(1) a solid olefin polymerisation catalyst comprising
(i) the pref. catalyst (below) and
(ii) an organoaluminium cpd; and
(2) a process comprising polymerising an olefin in the presence of the above catalyst.
USE - The catalyst is used to make, e.g. ethylene homopolymers or ethylene/olefin copolymers.
ADVANTAGE - The catalyst has excellent activity per unit wt. and can give polymers of high mol. wt. as particles of uniform size with very few fines.

=> d ibib ed ab ind 70-71
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' - CONTINUE? (Y)/N:y

L162 ANSWER 70 OF 71 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN DUPLICATE 3
ACCESSION NUMBER: 94175759 EMBASE Full-text
DOCUMENT NUMBER: 1994175759
TITLE: Requirement for iron for the production of hydroxyl radicals by rat liver quinone reductase.
AUTHOR: Dicker E.; Cederbaum A.I.
CORPORATE SOURCE: Department of Biochemistry, Mount Sinai School of Medicine, Box 1020, One Gustave L. Levy Place,New York, NY 10029, United States
SOURCE: Journal of Pharmacology and Experimental Therapeutics, (1993) Vol. 266, No. 3, pp. 1282-1290. .
ISSN: 0022-3565 CODEN: JPETAB
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 6 Jul 1994
Last Updated on STN: 6 Jul 1994
ED Entered STN: 6 Jul 1994
Last Updated on STN: 6 Jul 1994
AB NADPH-quinone reductase catalyzes the two-electron reduction of quinones such as menadione, and generally is considered to play a protective role against quinone-mediated toxicity. Recent studies have shown that reactive oxygen intermediates may be produced during metabolism of quinones by quinone reductase. Experiments were carried out to evaluate the effect of iron complexes on production of hydroxyl radical (·OH) when menadione was oxidized by a rat liver cytosolic fraction. Menadione-stimulated H2O2 production when added to the cytosol; dicoumarol, a potent inhibitor of quinone reductase, completely blocked this stimulation. Results were identical with either NADH or NADPH as reductant. In the absence of added iron, ·OH, assessed as oxidation of chemical scavengers, was not produced. Various ferric chelates, added to the cytosol in the absence of menadione, did not catalyze ·OH production. However, ·OH was produced in the presence of menadione with all ferric complexes evaluated except for ferric- desferrioxamine. Catalase, competitive scavengers and GSH inhibited ·OH production, as did dicoumarol. Superoxide dismutase inhibited with ferric- ATP, ferric-citrate, ferric-histidine or ferric ammonium sulfate as iron catalysts, but had no effect with ferric-EDTA or ferric-diethylenetriamine penta-acetic acid. Reduction of the ferric complexes was increased by menadione. NADH and NADPH were equally effective as cofactor for all these reactions. Metabolism of menadione in the presence of iron complexes caused inactivation of enzymes present in the cytosolic fraction such as glutamine synthetase and lactic dehydrogenase. These results indicate that metabolism of menadione by quinone reductase can lead to the production of ·OH in the presence of various ferric catalysts. Menadione-dependent production of H2O2 and reduction of the ferric catalyst appear to be responsible for the generation of ·OH in this system. Quinone reductase may not always serve a protective role against free radical damage, especially if iron is present.
CT Medical Descriptors:
*drug oxidation

*liver cytosol
animal tissue
article
enzyme inactivation
liver microsome
liver protection
nonhuman
priority journal
rat
reduction
Drug Descriptors:
*dicoumarol
*hydrogen peroxide: EC, endogenous compound
*hydroxyl radical: EC, endogenous compound
*iron complex
*menadione: PK, pharmacokinetics
*reduced nicotinamide adenine dinucleotide (phosphate) dehydrogenase (quinone): EC, endogenous compound
adenosine triphosphate
ammonium sulfate
antioxidant
catalase
deferoxamine
dimethyl sulfoxide
edetic acid
ethylene
ferric citrate
ferric ion
formaldehyde
glutamate ammonia ligase: EC, endogenous compound
glutathione
histidine
lactate dehydrogenase: EC, endogenous compound
liver enzyme: EC, endogenous compound
pentetic acid
quinone derivative
reduced nicotinamide adenine dinucleotide
reduced nicotinamide adenine dinucleotide phosphate
scavenger
superoxide dismutase
RN (dicoumarol) 66-76-2; (hydrogen peroxide) 7722-84-1; (hydroxyl radical) 3352-57-6; (menadione) 58-27-5; (reduced nicotinamide adenine dinucleotide (phosphate) dehydrogenase (quinone)) 9032-20-6; (adenosine triphosphate) 15237-44-2, 56-65-5, 987-65-5; (ammonium sulfate) 7783-20-2; (catalase) 9001-05-2; (deferoxamine) 70-51-9; (dimethyl sulfoxide) 67-68-5; (edetic acid) 150-43-6, 60-00-4; (ethylene) 74-85-1; (ferric citrate) 28633-45-6, 3522-50-7; (ferric ion) 20074-52-6; (formaldehyde) 50-00-0; (glutamate ammonia ligase) 9023-70-5; (glutathione) 70-18-8; (histidine) 645-35-2, 7006-35-1, 71-00-1; (lactate dehydrogenase) 9001-60-9; (pentetic acid) 14047-41-7, 67-43-6; (reduced nicotinamide adenine dinucleotide) 58-68-4; (reduced nicotinamide adenine dinucleotide phosphate) 53-57-6; (superoxide dismutase) 37294-21-6, 9016-01-7, 9054-89-1

L162 ANSWER 71 OF 71 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2001315448 EMBASE Full-text
TITLE: Therapeutic potential of PKC inhibitors in painful diabetic neuropathy.
AUTHOR: Kamei J.; Mizoguchi H.; Narita M.; Tseng L.F.
CORPORATE SOURCE: J. Kamei, Dept. Pathophysiology/Therapeutics, Faculty of

Pharmaceutical Sciences, Hoshi University, Tokyo 142-8501, Japan. kamei@hoshi.ac.jp
SOURCE: Expert Opinion on Investigational Drugs, (2001) Vol. 10, No. 9, pp. 1653-1664. .
Refs: 127
ISSN: 1354-3784 CODEN: EOIDER
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
005 General Pathology and Pathological Anatomy
006 Internal Medicine
008 Neurology and Neurosurgery
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 27 Sep 2001
Last Updated on STN: 27 Sep 2001
ED Entered STN: 27 Sep 2001
Last Updated on STN: 27 Sep 2001
AB Diabetic neuropathy accompanied by anomalies in pain perception is one of the most frequent complications in insulin-dependent diabetes in humans. Many clinical and experimental studies have suggested that diabetes or hyperglycaemia alters pain sensitivity. In humans, diabetic neuropathy can be associated with burning, tactile hypersensitivity. Behavioural reactions of hyperalgesia in animal models of diabetes have been described. However, the aetiology of these disturbances is still unknown, although metabolic factors such as hyperglycaemia or neurotransmitter alteration may be involved. Activation of protein kinase C (PKC) has been implicated in changes in pain perception. Phorbol esters, which activate PKC, enhance the thermal hyperalgesia in diabetic mice and enhance nociceptive responses after tissue injury induced by formalin. Electrophysiological experiments have shown that activation of PKC leads to long-lasting enhancement of excitatory amino acid-mediated currents in dorsal horn neurons and trigeminal neurons. Thus, activation of PKC may underlie the neuronal sensitisation that produces hyperalgesia in diabetic neuropathy.
CT Medical Descriptors:
*diabetic neuropathy: CO, complication
*diabetic neuropathy: DT, drug therapy
*diabetic neuropathy: ET, etiology
nociception
insulin dependent diabetes mellitus
hyperglycemia
touch
hypersensitivity
hyperalgesia: CO, complication
hyperalgesia: DT, drug therapy
hyperalgesia: ET, etiology
disease model
enzyme activation
tissue injury
electrophysiology
spinal cord dorsal horn
trigeminal nerve
nerve cell
sensitization
drug efficacy
thermal stimulation
sciatic nerve
nerve ligation

knockout mouse
streptozocin diabetes
tail flick test
peripheral nerve injury
sodium channel
human
nonhuman
mouse
animal experiment
animal model
controlled study
animal tissue
review
Drug Descriptors:
*protein kinase C inhibitor: DT, drug therapy
*protein kinase C inhibitor: PD, pharmacology
neurotransmitter: EC, endogenous compound
protein kinase C: EC, endogenous compound
phorbol ester: PD, pharmacology
formaldehyde
amino acid: EC, endogenous compound
glutamic acid: EC, endogenous compound
n methyl dextro aspartic acid receptor: EC, endogenous compound
4 carboxyphenylglycine: DT, drug therapy
4 carboxyphenylglycine: PD, pharmacology
4 carboxyphenylglycine: TL, intrathecal drug administration
n methyl dextro aspartic acid receptor blocking agent: DT, drug therapy
n methyl dextro aspartic acid receptor blocking agent: PD, pharmacology
n methyl dextro aspartic acid receptor blocking agent: TL, intrathecal
drug administration
dizocilpine: DT, drug therapy
dizocilpine: PD, pharmacology
dizocilpine: TL, intrathecal drug administration
ketamine: DT, drug therapy
ketamine: PD, pharmacology
neurokinin 1 receptor: EC, endogenous compound
substance P: EC, endogenous compound
calphostin C: DT, drug therapy
calphostin C: PD, pharmacology
calphostin C: TL, intrathecal drug administration
cyclic AMP dependent protein kinase: EC, endogenous compound
tachykinin: EC, endogenous compound
streptozocin
9 [(dimethylamino)methyl] 6,7,10,11 tetrahydro 9h,18h 5,21:12,17
dimethenodibenzo[e,k]pyrrolo[3,4 h][1,4,13]oxadiazacyclohexadecine
18,20(19h) dione: DT, drug therapy
9 [(dimethylamino)methyl] 6,7,10,11 tetrahydro 9h,18h 5,21:12,17
dimethenodibenzo[e,k]pyrrolo[3,4 h][1,4,13]oxadiazacyclohexadecine
18,20(19h) dione: PD, pharmacology
inositol: EC, endogenous compound
niceritrol: DT, drug therapy
niceritrol: PD, pharmacology
polyol: EC, endogenous compound
aldose reductase inhibitor: PD, pharmacology
ganglioside GM1: PD, pharmacology
phorbol 13 acetate 12 myristate: PD, pharmacology
forskolin: PD, pharmacology
phorbol dibutyrate: PD, pharmacology
tetrodotoxin
sodium: EC, endogenous compound

vanilloid receptor: EC, endogenous compound
unindexed drug
RN (protein kinase C) 141436-78-4; (formaldehyde) 50-00-0; (amino acid) 65072-01-7; (glutamic acid) 11070-68-1, 138-15-8, 56-86-0, 6899-05-4; (4 carboxyphenylglycine) 7292-81-1; (dizocilpine) 77086-21-6; (ketamine) 1867-66-9, 6740-88-1, 81771-21-3; (substance P) 33507-63-0; (calphostin C) 121263-19-2; (streptozocin) 18883-66-4; (9 [(dimethylamino)methyl] 6,7,10,11 tetrahydro 9h,18h 5,21:12,17 dimethenodibenzo[e,k]pyrrolo[3,4 h][1,4,13]oxadiazacyclohexadecine 18,20(19h) dione) 169939-94-0; (inositol) 55608-27-0, 6917-35-7, 87-89-8; (niceritrol) 5868-05-3; (ganglioside GM1) 37758-47-7; (phorbol 13 acetate 12 myristate) 16561-29-8; (forskolin) 66575-29-9; (phorbol dibutyrate) 61557-88-8; (tetrodotoxin) 4368-28-9, 4664-41-9; (sodium) 7440-23-5
CN Mk 801


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L3              TRANSFER  PLU=ON  L1 1- RN :      53 TERMS
L4             53 SEA FILE=REGISTRY ABB=ON  PLU=ON  L3
L5              3 SEA FILE=REGISTRY ABB=ON  PLU=ON  L4 AND PMS/CI
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L9              1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TETRAOXANE/CN
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L20               STR
L24         81815 SEA FILE=REGISTRY SSS FUL L20
L25               STR
L27               STR
L30         53675 SEA FILE=REGISTRY SUB=L24 SSS FUL (L25 OR L27)
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L33               QUE  ABB=ON  PLU=ON  BASF/CS,SO,PA
L36               QUE  ABB=ON  PLU=ON  ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
                  R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
                  ? OR ?HEPTANDION?
L37               QUE  ABB=ON  PLU=ON  ?CATALY?
L38               QUE  ABB=ON  PLU=ON  ?POLYOXYMETHYLEN? OR (POLY(1A)OXYMET
                  HYLEN?) OR (POLYOXY(1A)METHYLEN?)
L39               QUE  ABB=ON  PLU=ON  ?POLYMER OR HOMOPOLYMER? OR ?POLYMER
                  I?
L40               QUE  ABB=ON  PLU=ON  FORMALDEHYD? OR TRIOXANE OR TETRAOXA
                  NE OR TETROXANE OR PARAFORMALDEHYD?
L42               QUE  ABB=ON  PLU=ON  "POLYMERIZATION CATALYSTS"+PFT,OLD,N
                  EW,NT/CT
L43               QUE  ABB=ON  PLU=ON  POLYOXYALKYLENES+PFT,OLD,NEW,NT/CT
L44               QUE  ABB=ON  PLU=ON  "POLYOXYALKYLENES, PREPARATION"+PFT,
                  OLD,NEW,NT/CT
L45               QUE  ABB=ON  PLU=ON  POLYOXYMETHYLENES+PFT,OLD,NEW,NT/CT
L46               QUE  ABB=ON  PLU=ON  "POLYOXYMETHYLENES, PREPARATION"+PFT
                  ,OLD,NEW,NT/CT
L48            16 SEA FILE=REGISTRY ABB=ON  PLU=ON  L4 AND L24
L49             1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L48
L50          1858 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16 (L) L36
L51        144654 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16 (L) CAT/RL
L52           217 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L50 AND L51
L53         45193 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L30
L54         10230 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L53 (L) CAT/RL
L55          3687 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L53 (L) (L38 OR L39)
L56         10791 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L53 (L) L37
L57          2657 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L54 OR L56) AND L55
L58          3936 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L53 AND L42
L59          8834 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5
L60        247485 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ((?POLYOXYMETHYLEN?/OBI OR
                  (POLY/OBI(1A)OXYMETHYLEN?/OBI) OR (POLYOXY/OBI(1A)METHYLEN?/OBI
                  )) OR (L43 OR L44 OR L45 OR L46))
L61         45115 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L40 (15A) L39
L62          3796 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 (L) L39
L63           279 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L59 OR L60 OR L61 OR L62)
                  AND (L49 OR L52 OR L57 OR L58)
L68             4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L63 AND (L32 OR L33)
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L69           159 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L53 AND (L32 OR L33)
L70            11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L69 AND (L59 OR L60 OR L61 OR
                  L62)
L71            11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L68 OR L70
L72             1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L71 AND L32
L73            11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L71 OR L72)


=> d que 1110
L32               QUE  ABB=ON  PLU=ON  LUINSTRA, G?/AU
L33               QUE  ABB=ON  PLU=ON  BASF/CS,SO,PA
L36               QUE  ABB=ON  PLU=ON  ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
                  R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
                  ? OR ?HEPTANDION?
L85               QUE  ABB=ON  PLU=ON  TI OR TIO OR ZR OR ZRO OR VO OR V OR
                   CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
                  O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
                  OR CU OR ZN OR CD OR HG OR SN OR SNO OR PBO OR PB
L86               QUE  ABB=ON  PLU=ON  TITAN? OR ZIRCON? OR HAFN? OR VANAD?
                   OR CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
                   OR MANGANES? OR RHENIUM? OR RHENAT? OR IRON OR FERRIC OR
                   FERRIUM OR FERROUS OR RUTHEN? OR COBALT? OR RHODIUM? OR
                  RHODAT? OR IRIDIUM? OR IRIDAT?
L87               QUE  ABB=ON  PLU=ON  NICKEL OR PALLAD? OR PLATINAT? OR PL
                  ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
                  M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
                  R LEAD
L100              QUE  ABB=ON  PLU=ON  (E05-F02 OR E05-L OR E05-M OR E05-N)
                  /MC
L101              QUE  ABB=ON  PLU=ON  ((A922 (P) A960)(P)Q121)/MO,M1,M2,M3
                  ,M4,M5,M6
L102        3485 SEA FILE=WPIX ABB=ON  PLU=ON  (L85 OR L86 OR L87)(10A)L36
L103         812 SEA FILE=WPIX ABB=ON  PLU=ON  L100 AND L36
L104          15 SEA FILE=WPIX ABB=ON  PLU=ON  L101 AND (L102 OR L103)
L110           3 SEA FILE=WPIX ABB=ON  PLU=ON  L104 AND (L32 OR L33)


=> d his 1126

     (FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 11:56:50 ON 05 FEB 2007)
L126           2 S (L116 OR L117 OR L120 OR L121) AND L32-L33

=> d que nos 1126
L1             1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  US2004-510476/APPS
L3               TRANSFER  PLU=ON  L1 1- RN :      53 TERMS
L4            53 SEA FILE=REGISTRY ABB=ON  PLU=ON  L3
L5             3 SEA FILE=REGISTRY ABB=ON  PLU=ON  L4 AND PMS/CI
L32               QUE  ABB=ON  PLU=ON  LUINSTRA, G?/AU
L33               QUE  ABB=ON  PLU=ON  BASF/CS,SO,PA
L36               QUE  ABB=ON  PLU=ON  ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
                  R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
                  ? OR ?HEPTANDION?
L38               QUE  ABB=ON  PLU=ON  ?POLYOXYMETHYLEN? OR (POLY(1A)OXYMET
                  HYLEN?) OR (POLYOXY(1A)METHYLEN?)
L65               SEL  PLU=ON  L5 1- NAME :      45 TERMS
L85               QUE  ABB=ON  PLU=ON  TI OR TIO OR ZR OR ZRO OR VO OR V OR
                   CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
                  O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
                  OR CU OR ZN OR CD OR HG OR SN OR SNO OR PBO OR PB
L86               QUE  ABB=ON  PLU=ON  TITAN? OR ZIRCON? OR HAFN? OR VANAD?
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                OR CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
                OR MANGANES? OR RHENIUM? OR RHENAT? OR IRON OR FERRIC OR
                FERRIUM OR FERROUS OR RUTHEN? OR COBALT? OR RHODIUM? OR
                RHODAT? OR IRIDIUM? OR IRIDAT?
L87             QUE  ABB=ON  PLU=ON  NICKEL OR PALLAD? OR PLATINAT? OR PL
                ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
                M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
                R LEAD
L116         2328 SEA L5
L117         3668 SEA (L85 OR L86 OR L87) (10A) L36
L120        11873 SEA L65
L121        11991 SEA L120 OR L38
L126            2 SEA (L116 OR L117 OR L120 OR L121) AND (L32 OR L33)


=> d his 1152

     (FILE 'MEDLINE, BIOSIS, EMBASE, PASCAL, JICST-EPLUS, APOLLIT, CABA,
     SCISEARCH, CONFSCI, DISSABS' ENTERED AT 12:11:58 ON 05 FEB 2007)
L152            6 S L146 AND L32-L33

=> d que nos 1152
L32             QUE  ABB=ON  PLU=ON  LUINSTRA, G?/AU
L33             QUE  ABB=ON  PLU=ON  BASF/CS,SO,PA
L36             QUE  ABB=ON  PLU=ON  ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
                R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
                ? OR ?HEPTANDION?
L85             QUE  ABB=ON  PLU=ON  TI OR TIO OR ZR OR ZRO OR VO OR V OR
                 CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
                O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
                OR CU OR ZN OR CD OR HG OR SN OR SNO OR PBO OR PB
L86             QUE  ABB=ON  PLU=ON  TITAN? OR ZIRCON? OR HAFN? OR VANAD?
                 OR CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
                 OR MANGANES? OR RHENIUM? OR RHENAT? OR IRON OR FERRIC OR
                FERRIUM OR FERROUS OR RUTHEN? OR COBALT? OR RHODIUM? OR
                RHODAT? OR IRIDIUM? OR IRIDAT?
L87             QUE  ABB=ON  PLU=ON  NICKEL OR PALLAD? OR PLATINAT? OR PL
                ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
                M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
                R LEAD
L146        10824 SEA (METAL OR (L85 OR L86 OR L87))(7A) L36
L152            6 SEA L146 AND (L32 OR L33)



=> d que nos 1145
L32             QUE  ABB=ON  PLU=ON  LUINSTRA, G?/AU
L33             QUE  ABB=ON  PLU=ON  BASF/CS,SO,PA
L36             QUE  ABB=ON  PLU=ON  ?DIKETO? OR (DI(W)KETO?) OR ?DIONE O
                R ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION
                ? OR ?HEPTANDION?
L37             QUE  ABB=ON  PLU=ON  ?CATALY?
L85             QUE  ABB=ON  PLU=ON  TI OR TIO OR ZR OR ZRO OR VO OR V OR
                 CRO2 OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR RE
                O2 OR RE OR FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT
                OR CU OR ZN OR CD OR HG OR SN OR SNO OR PBO OR PB
L86             QUE  ABB=ON  PLU=ON  TITAN? OR ZIRCON? OR HAFN? OR VANAD?
                 OR CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA?
                 OR MANGANES? OR RHENIUM? OR RHENAT? OR IRON OR FERRIC OR
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                FERRIUM OR FERROUS OR RUTHEN? OR COBALT? OR RHODIUM? OR
                RHODAT? OR IRIDIUM? OR IRIDAT?
L87             QUE  ABB=ON  PLU=ON  NICKEL OR PALLAD? OR PLATINAT? OR PL
                ATINUM? OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIU
                M? OR CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN O
                R LEAD
L129          974 SEA FILE=JAPIO ABB=ON  PLU=ON  (METAL OR (L85 OR L86 OR L87))
                (15A)L36
L144            2 SEA FILE=JAPIO ABB=ON  PLU=ON  L129 AND (L32 OR L33)
L145            2 SEA FILE=JAPIO ABB=ON  PLU=ON  L144 AND (L37 OR ACTIV?)


=> dup rem l73 l110 l126 l152 l145
FILE 'HCAPLUS' ENTERED AT 12:51:08 ON 05 FEB 2007
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PROCESSING COMPLETED FOR L73
PROCESSING COMPLETED FOR L110
PROCESSING COMPLETED FOR L126
PROCESSING COMPLETED FOR L152
PROCESSING COMPLETED FOR L145
L163           22 DUP REM L73 L110 L126 L152 L145 (2 DUPLICATES REMOVED)
                ANSWERS '1-11' FROM FILE HCAPLUS
                ANSWERS '12-13' FROM FILE WPIX
                ANSWER '14' FROM FILE BIOSIS
                ANSWER '15' FROM FILE EMBASE
                ANSWERS '16-17' FROM FILE CABA
                ANSWERS '18-20' FROM FILE SCISEARCH
                ANSWERS '21-22' FROM FILE JAPIO

=> file stnguide
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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb  2, 2007 (20070202/UP).
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=> d ibib ed ab 1-22
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, WPIX, BIOSIS, EMBASE, JAPIO, CABA,
SCISEARCH' - CONTINUE? (Y)/N:y


L163 ANSWER 1 OF 22  HCAPLUS  COPYRIGHT 2007 ACS on STN DUPLICATE 1
ACCESSION NUMBER:         2003:818473  HCAPLUS  Full-text
DOCUMENT NUMBER:          139:308120
TITLE:                    Production of polyoxymethylene in the
                          presence of diketonate metal complexes
INVENTOR(S):              Luinstra, Gerrit
PATENT ASSIGNEE(S):       BASF Aktiengesellschaft, Germany
SOURCE:                   PCT Int. Appl., 25 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ----------------    ----   --------    --------------------   --------
     WO 2003085016        A1    20031016    WO 2003-EP3744         20030410
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     DE 10215976          A1    20031023    DE 2002-10215976       20020411
     AU 2003227601        A1    20031020    AU 2003-227601         20030410
     EP 1497346           A1    20050119    EP 2003-725003         20030410
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     CN 1653104           A     20050810    CN 2003-810655         20030410
     JP 2005526880        T     20050908    JP 2003-582204         20030410
     US 2005255990        A1    20051117    US 2004-510476         20041007
PRIORITY APPLN. INFO.:                      DE 2002-10215976    A  20020411
                                            WO 2003-EP3744      W  20030410

OTHER SOURCE(S):          MARPAT 139:308120
ED   Entered STN:  17 Oct 2003
AB   A method for production of polyoxymethylene comprises contacting a
     formaldehyde source with a catalyst of the formula [R1(CO)CR2(CO)R3]nMZ, where
     M is TiO, ZrO, HfO, VO, CrO2, MoO2, WO2, MnO2, ReO2, Fe, Ru, Co, Rh, Ir, Ni,
     Pd, Pt, Cu, Zn, Cd, Hg, Sn, SnO or PbO; R1, R2 and R3 are independently groups
     chosen from H, alkyl, aryl, or arylalkyl; R1, R2 and R3 can be completely or
     partly halogenated; Z is an anion; and n is 1 or 2. Thus, chlorodioxo(2,4-
     pentanedione)molybdenum was produced and used as a catalyst to copolymerize
     1,3-dioxepane and trioxane at 80°. The produced copolymer had weight-average
     mol. weight of 95,000 and polydispersity of 5.5.
REFERENCE COUNT:          9      THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L163 ANSWER 2 OF 22  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2005:409579  HCAPLUS  Full-text
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DOCUMENT NUMBER:          142:464164
TITLE:                    Method for the production of prepolymers containing
                          isocyanate groups
INVENTOR(S):              Wind, Michael; Kreyenschmidt, Martin; Murrar, Imbridt;
                          Reese, Hans-Juergen; Urtel, Heiko; Malz, Hauke
PATENT ASSIGNEE(S):       BASF Aktiengesellschaft, Germany
SOURCE:                   PCT Int. Appl., 29 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ----------------    ----   --------    --------------------   --------
     WO 2005042604        A1    20050512    WO 2004-EP12335        20041030
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
     DE 10351530          A1    20050616    DE 2003-10351530       20031103
     EP 1685174           A1    20060802    EP 2004-791088         20041030
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
     CN 1878808           A     20061213    CN 2004-80032844       20041030
PRIORITY APPLN. INFO.:                      DE 2003-10351530    A  20031103
                                            WO 2004-EP12335     W  20041030

OTHER SOURCE(S):          MARPAT 142:464164
ED   Entered STN:  13 May 2005
AB   The invention relates to a method for the production of prepolymers containing
     isocyanate groups by reacting: (a) diisocyanates with (b) compds. having at
     least two hydrogen atoms which react with isocyanate groups in the presence of
     (c) catalysts, and by subsequent separation of the surplus monomer
     diisocyanates. The invention is characterized in that (a) asym. diisocyanates
     (such as 2,4'-MDI) are used as diisocyanates and (b) organometallic catalysts
     (such as dibutyltin dilaurate) are used as catalysts and that said
     organometallic catalysts are removed, blocked or deactivated prior to
     separation of the monomer diisocyanates. This process provides products with
     monomer content <0.1%, low d.p., and narrow mol.-weight distribution.
REFERENCE COUNT:          4      THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L163 ANSWER 3 OF 22  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2005:52009  HCAPLUS  Full-text
DOCUMENT NUMBER:          142:135147
TITLE:                    Triazacyclohexane chromium as oligomerization catalyst
                          for short chain olefin
INVENTOR(S):              Maas, Heiko; Mihan, Shahram; Koehn, Randolf; Seifert,
                          Guido; Tropsch, Juergen
PATENT ASSIGNEE(S):       BASF Aktiengesellschaft, Germany
SOURCE:                   U.S., 10 pp., Cont.-in-part of U.S. Ser. No. 277,823,
                          abandoned.
                          CODEN: USXXAM
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DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6844290	B1	20050118	US 2001-937815	20010928
DE 19922048	A1	20001116	DE 1999-19922048	19990514
DE 19943544	A1	20010315	DE 1999-19943544	19990911
WO 2000058319	A1	20001005	WO 2000-EP2660	20000325
W: CN, JP, KR, SG, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 2000041120	A	20001016	AU 2000-41120	20000328
AU 773920	B2	20040610		
EP 1171483	A1	20020116	EP 2000-920600	20000328
EP 1171483	B1	20040825		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000009460	A	20020528	BR 2000-9460	20000328
JP 2002540261	T	20021126	JP 2000-608662	20000328
AT 274533	T	20040915	AT 2000-920600	20000328
US 6887958	B1	20050503	US 2001-937780	20000328
ZA 2001008840	A	20021028	ZA 2001-8840	20011026
ZA 2001008839	A	20030930	ZA 2001-8839	20011026
PRIORITY APPLN. INFO.:			US 1999-277823	B2 19990329
			DE 1999-19922048	A 19990514
			DE 1999-19943544	A 19990911
			WO 2000-EP2660	W 20000325
			DE 1999-19935407	A 19990730
			WO 2000-EP2716	W 20000328

OTHER SOURCE(S): MARPAT 142:135147
ED Entered STN: 20 Jan 2005
AB An oligomerization catalyst for olefins that is stable, inexpensive with improved activity and selectivity, is obtainable from (a) a chromium compound CrX3 and the at least equimolar amount, based on the chromium compound CrX3, of a ligand L or from an existing chromium complex CrX3L, in which the groups X are, independently of one another, abstractable counterions and L is a 1,3,5-triazacyclohexane of formula I, where the groups R1 to R9 are, independently of one another: hydrogen or organosilicon or substituted or unsubstituted carboorg. groups having from 1 to 30 carbon atoms, where two geminal or vicinal radicals R1 to R9 may also be joined to form a five-or six-membered ring, and (b) at least one activating additive selected from the group consisting of (i) and (ii) wherein: (i) is a combination of an unsubstituted or substituted five-membered aromatic N-heterocycle and at least one aluminum alkyl, wherein some of the alkyl groups of the aluminum alkyl are optionally replaced by halogen and/or alkoxy, and (ii) is an alkylalumoxane. A process for preparing oligomers of olefins using these catalysts, the oligomers thus obtainable, and the oxo alcs. obtainable from these oligomers are also discussed.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L163 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:351720 HCAPLUS Full-text
DOCUMENT NUMBER: 140:359001
TITLE: Water-thinned acrylic coating compositions with excellent curability, gloss, and antisoiling properties

INVENTOR(S): Dejima, Koichi; Furukawa, Shigeyuki
PATENT ASSIGNEE(S): BASF NOF Coating Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004131601	A	20040430	JP 2002-297628	20021010
PRIORITY APPLN. INFO.:			JP 2002-297628	20021010

OTHER SOURCE(S): MARPAT 140:359001
ED Entered STN: 30 Apr 2004
AB The compns. contain acrylic polymers (A) bearing OH groups and carboxyl groups, yellowing-resistant polyisocyanates (B), catalysts (C) consisting of Zr salts of compds. bearing active methylene groups, and optionally modified silicates (D) or alkoxysilanes bearing 0.1-0.9 poly(C1-4-oxyalkylene) groups, ≥0.1 C5-20-alkoxyl groups, and ≥1 C1-4-alkoxyl groups and/or inorg. oxide sols (E). Thus, a composition containing Bayhydur VPLS 2235 (acrylic polymer emulsion) 50, TiO2 35, Basonat HI 100 (hexamethylene diisocyanate trimer) 25, and 10% Zr acetylacetonate 1 part was applied to an Al plate and dried at 23° for 7 days to give a coating with 60° gloss 85 and good removal of carbon black (deposited on the surface) by washing in water.

L163 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:453140 HCAPLUS Full-text
DOCUMENT NUMBER: 135:46655
TITLE: Aqueous dispersions of ethylene polymers, their use and their production by emulsion polymerization using metal complexes
INVENTOR(S): Kristen, Marc Oliver; Manders, Lambertus; Mecking, Stefan; Bauers, Florian M.; Muelhaupt, Rolf
PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001044325	A1	20010621	WO 2000-EP10244	20001018
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19961340	A1	20010719	DE 1999-19961340	19991217
EP 1240215	A1	20020918	EP 2000-993408	20001018
EP 1240215	B1	20060426		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003517062	T	20030520	JP 2001-544812	20001018
AT 324388	T	20060515	AT 2000-993408	20001018
US 7129292	B1	20061031	US 2002-168113	20020617
PRIORITY APPLN. INFO.:			DE 1999-19961340	A 19991217
			WO 2000-EP10244	W 20001018

OTHER SOURCE(S): MARPAT 135:46655

ED Entered STN: 22 Jun 2001
AB Olefins such as ethylene are subjected to aqueous emulsion polymerization by reaction with at least one complex of of the general formula I or II (M =, transition metal of Groups 7 to 10 in the periodic table of elements, preferably Ni; L1 = phosphine, amine, ether, alc., water, pyridine, CO, nitrile, ethylenically unsatd. double bond system; L2 = dione, amine, organic anion; L1L2 may be joined to form a ring; E = N, P, As, Sb; Y = O, S, imino, phosphino; R1 to R3 and optionally one radical of R4 to R9 contain a hydrophilic group selected from SO3-, OPO32-, substituted amino, or -(OCH2CH2)nOH, whereby n represents a whole number between 1 and 15). An activator, for example olefin complexes of rhodium or nickel, may also be used in addition to an optional emulsifier. The catalysts are surprisingly amenable to emulsion polymerization processes at 25-70°. Examples were given for the production of polyethylene and ethylene-norbornene copolymer.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L163 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:93899 HCAPLUS Full-text
DOCUMENT NUMBER: 134:131251
TITLE: Procedure and catalyst system for the production of carboxylic acids by the carboxylation of olefins with carbon monoxide and water
INVENTOR(S): Schaefer, Martin; Schulz, Michael
PATENT ASSIGNEE(S): Basf A.-G., Germany
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19936979	A1	20010208	DE 1999-19936979	19990805
WO 2001010807	A1	20010215	WO 2000-EP7025	20000721
W: CN, JP, KR, SG, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1200382	A1	20020502	EP 2000-951426	20000721
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003506422	T	20030218	JP 2001-515277	20000721
PRIORITY APPLN. INFO.:			DE 1999-19936979	A 19990805
			WO 2000-EP7025	W 20000721

OTHER SOURCE(S): CASREACT 134:131251; MARPAT 134:131251
ED Entered STN: 08 Feb 2001
AB Carboxylic acids (e.g., propionic acid) are prepared by the carbonylation of olefins with carbon monoxide in presence of water using a catalyst system comprising: (A) rhodium or a rhodium compound (e.g., rhodium dicarbonylacetylacetonate); (B) at least one nitrogenous heterocyclic compound (e.g., pyridine); (C) at least one alkali or alkaline-earth salt of an aliphatic C2-20 carboxylic acid (e.g., potassium propionate); and (D) at least a glycol diether R1O(CH2CH2)nOR2 (R1, R2 = C1-20 alkyl, R3CO; R3 = H, alkyl; n = 1-30; R1R2 = C1-20 alkylene chain) (e.g., diglyme).

L163 ANSWER 7 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:586282 HCAPLUS Full-text
DOCUMENT NUMBER: 122:316413

TITLE: Use of aqueous polyurethane dispersion as an adhesive.
INVENTOR(S): Licht, Ulrike; Wallon, Alexander; Auchter, Gerhard; Maempel, Lothar; Seibert, Horst; Haeberle, Karl; Fries, Werner
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 622436	A1	19941102	EP 1994-105770	19940414
EP 622436	B1	19961009		
R: BE, DE, ES, FR, GB, IT, NL, SE				
DE 4314237	A1	19941103	DE 1993-4314237	19930430
ES 2092350	T3	19961116	ES 1994-105770	19940414
CA 2121959	A1	19941031	CA 1994-2121959	19940422
JP 06313161	A	19941108	JP 1994-90074	19940427
AU 9460777	A	19941103	AU 1994-60777	19940428
AU 671005	B2	19960808		
PRIORITY APPLN. INFO.:			DE 1993-4314237	A 19930430

ED Entered STN: 03 Jun 1995
AB The polyurethane is based on organic polyisocyanates, polyhydroxy compds. (mol. weight 500-5000), compds. with ≥1 isocyanate-reactive group and ≥1 ionic group or group convertible thereto, and optionally compds. with ≥2 isocyanate reactive groups (mol. weight 60-500) and the dispersion also contains a chelate of a polyvalent metal. The chelate improves the adhesive properties. Thus, a polyurethane was based on poly(butylene adipate), TDI, hexamethylene diisocyanate, and the Na salt of an ethylenediamine-acrylic acid Michael reaction adduct plus HCHO-PhOH resin and 1% (on polyurethane) Al acetylacetonate and the composition was used as a water-based adhesive with good properties.

L163 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:536992 HCAPLUS Full-text
DOCUMENT NUMBER: 115:136992
TITLE: Catalyst solution for polyurethane formation
INVENTOR(S): Blum, Rainer
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Ger. Offen., 4 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3938203	A1	19910523	DE 1989-3938203	19891117
PRIORITY APPLN. INFO.:			DE 1989-3938203	19891117

ED Entered STN: 05 Oct 1991
AB The title solns. contains ferric compound 1-25, aromatic carbonyl compound or alc. 1-35, imidazole or benzimidazole 0-35, and polyol(s) 5-98%. The solns. are storage stable. Thus, a mixture of salicylaldehyde 10, poly(propylene oxide) triol (I) 100, ferric acetylacetonate (II) 5, and 1,2-dimethylimidazole 10 parts was heated 2 h at 60° to give a dark brown solution which did not

precipitate after 3 mo. A solution prepared from 100 parts I and 2.5 parts, II did precipitate in this time.

L163 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1985:542835 HCAPLUS Full-text
DOCUMENT NUMBER: 103:142835
TITLE: Reducing the viscosity of filled liquid polymers
INVENTOR(S): Brizgys, Bernardas; Gallagher, James Aloysius
PATENT ASSIGNEE(S): BASF Wyandotte Corp. , USA
SOURCE: Brit. UK Pat. Appl., 7 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2147592	A	19850515	GB 1983-26726	19831006

PRIORITY APPLN. INFO.: GB 1983-26726 19831006
ED Entered STN: 01 Nov 1985
AB Organic Zr compds. which are dispersible or soluble in liquid polyester or polyether polyols containing ≥2 active H atoms/mol. are effective in reducing the viscosity of the polyols containing inorg. fillers. Thus, 2.5 g Zr neodecanoate (I) [39049-04-2] was mixed with a composition containing polypropylene glycol ether with propylene glycol [52309-41-8] (mol. weight 2000), calcined clay 253, yellow Fe oxide pigment 4, and PhHg carboxylate (Cosan 27, containing 45 weight% Hg) 1.2 g. The viscosity of the composition, when measured with a Brookfield viscometer at 2, 4, 10, and 20 rpm, was 4500, 2400, 2200, and 1720 cP at 25°, resp., vs. 9500, 6250, 3800, and 2850 cP, resp., for a similar composition without I. The composition, together with an organic polyisocyanate and a catalyst, was suitable for the preparation of cellular and noncellular polyurethanes.

L163 ANSWER 10 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:104548 HCAPLUS Full-text
DOCUMENT NUMBER: 100:104548
TITLE: Organic zirconium compounds to reduce viscosity of filled liquid polymers
INVENTOR(S): Brizgys, Bernardas; Gallagher, James A.
PATENT ASSIGNEE(S): BASF Wyandotte Corp. , USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4423180	A	19831227	US 1982-407654	19820812

PRIORITY APPLN. INFO.: US 1982-407654 19820812
OTHER SOURCE(S): MARPAT 100:104548
ED Entered STN: 12 May 1984
AB The viscosity of polyether polyols is lowered by the addition of an organic Zr compound Thus, to 543 g polyether polyol prepared by oxypropylating propylene glycol was added calcined clay 253, yellow Fe oxide pigment 4, a phenylmercury carboxylate 1.2 g, and zirconium neodecanoate (I) [39049-04-2] 2.5 g. The

mixture was stirred with a high shear mixer to give a composition having Brookfield viscosity 4500 cPs at 2 rpm spindle speed. When I was omitted, the viscosity was 9500 cPs.

L163 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1980:43081 HCAPLUS Full-text
DOCUMENT NUMBER: 92:43081
TITLE: Nonflammable insulating material
INVENTOR(S): Woerner, Frank Peter; Mahnke, Harald; Weber, Heinz; Sand, Hermann; Trautz, Volker; Geierhaas, Herbert
PATENT ASSIGNEE(S): BASF A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 10 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2814814	A1	19791018	DE 1978-2814814	19780406
EP 4602	A1	19791017	EP 1979-100867	19790322
R: CH, DE, FR, GB				

PRIORITY APPLN. INFO.: DE 1978-2814814 19780406
ED Entered STN: 12 May 1984
AB Nonflammable insulating materials comprised inorg. lightwt. particles, e.g. perlite or vermiculite, 50-98.8, fibrous or granular inorg. additives 0-40, a polymeric binder 1-30, and a transition metal compound 0.1-15%. Thus, when subjected to smoldering, a insulating sheet comprising perlite 85, formaldehyde-phenol copolymer [9003-35-4] 14, formaldehyde-nonylphenol-phenol copolymer [37238-34-9] 1, and CuO 1 part showed much lower emissions of CO and CO2 than a similar composition containing no CuO.

L163 ANSWER 12 OF 22 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-550895 [62] WPIX
DOC. NO. CPI: C2001-164175 [62]
TITLE: Production of highly-branched elastomeric polyolefin, for use e.g. as impact modifier, involves oligomerization of ethene with a special arylimino-pyridine metal complex and polymerisation with metallocene catalyst
DERWENT CLASS: A17; E11; E12
INVENTOR: GEPRAEGS M; HEINEMANN J; LUIMSTRA G; MUELHAUPT R; QUEISSER J
PATENT ASSIGNEE: (BADI-C) BASF AG
COUNTRY COUNT: 22

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
DE 19960123	A1	20010621	(200162)*	DE	15	[0]
WO 2001044317	A1	20010621	(200162)	DE		
EP 1237952	A1	20020911	(200267)	DE		
JP 2003517056	W	20030520	(200334)	JA	44	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

DE 19960123 A1		DE 1999-19960123 19991213
EP 1237952 A1		EP 2000-983173 20001127
WO 2001044317 A1		WO 2000-EP11812 20001127
EP 1237952 A1		WO 2000-EP11812 20001127
JP 2003517056 W		WO 2000-EP11812 20001127
JP 2003517056 W		JP 2001-544804 20001127

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1237952 A1	Based on	WO 2001044317 A
JP 2003517056 W	Based on	WO 2001044317 A

PRIORITY APPLN. INFO: DE 1999-19960123 19991213
ED 20050706
AB DE 19960123 A1 UPAB: 20060117
NOVELTY - Production of highly branched amorphous polyethylene with elastomeric properties involves oligomerization of ethene in the presence of a 2,6-bis-(1-aryliminoethyl)-pyridine transition metal complex with no substituents at the two ortho positions in the aryl groups, followed by further polymerization in presence of a metallocene catalyst.
DETAILED DESCRIPTION - A homogeneous catalytic process for the production of highly-branched amorphous polyolefins with elastomeric properties from ethene involves:
(a) oligomerization of ethene in inert solvent in presence of transition metal compound(s) of formula (I) and optionally cocatalyst(s) in the form of strong neutral Lewis acids or ionic compounds with Lewis or Bronsted acid cations, using compounds (I);
(b) addition of transition metal compound(s) of formula (II) and optionally other cocatalysts as above followed by further reaction in presence of ethene, using compounds (II); and
(c) isolation of the product.
R1, R2 = 4-16C heteroaryl or 6-16C aryl with hydrogen atoms in the two vicinal positions to the linking points between aryl or heteroaryl and Na or Nb;
R3, R4 = H, 1-10C alkyl, 3-10C cycloalkyl, 6-16C aryl, (1-10C alkyl)-(6-14C aryl), or Si(R8)3 with R5 = alkyl, cycloalkyl, aryl or alkyl-aryl as above;
R5-R7 = as for R3-R4, or functional groups based on Group IVA-VIIA elements, or R5 and R6 and/or R6 and R7 together may form condensed 5-, 6- or 7-membered, optionally substituted aliphatic or aromatic carbo- or hetero-cycles;
MI = iron, ruthenium, cobalt, rhodium, nickel or palladium;
T, Q = neutral or mono-anionic monodentate ligands, or T and Q together may form a diketo-enolate unit or a 2C or 3C alkylene unit with a methyl ketone or linear 1-4C alkyl ester or nitrile end group;
A = a non- or poorly-coordinating anion;
m, p = 0, 1, 2 or 3;
q, n = 1, 2 or 3;
R9-R12 = as for R5-R7;
MII = a Group IIIB, IVB, VB or VIB element;
T', Q' = H, 1-10C alkyl, 6-20C aryl, halogen, -OR', -SR', -OSi(R')3, -Si(R')3, -C(R)2Si(R')3, -P(R')2, -N(R')2, tolunesulfonyl, trifluoroacetyl, trifluoromethanesulfonyl, nonafluorobutanesulfonyl or 2,2,2-trifluoroethanesulfonyl;
Z = -C(R')2-, -Si(R')2-, -Ge(R')2-, -Sn(R')2-, -BR'- or -O-;
R' = 1-20C alkyl or alkoxy, 3-10C cycloalkyl or cycloalkoxy, 6-16C aryl or aryloxy, or (1-10C alkyl)-(6-10C aryl or aryloxy);

k = 1, 2 or 3;
G = -O-, -S-, -NR-, -PR-, -BR-, -OR-, -SR-, -N(R)2-, -P(R)2- or a group of formula (III);
R = H, 1-20C alkyl, 3-10C cycloalkyl, 6-15C aryl, (1-10C alkyl)-(6-10C aryl) or 3-30C organosilyl, or Zk and G may form an optionally substituted aromatic or heteroaromatic system with 4-16 ring carbons, or Zk and R9 and/or R12 may form a mono- or poly-cyclic aliphatic, aromatic or heteroaromatic ring system.
USE - For the production of highly branched amorphous polyolefins with elastomeric properties, which are used, e.g. as impact modifiers for linear polyolefins, polyamides, polyacetals or polyesters.
ADVANTAGE - A simple and efficient process for the production of highly branched amorphous polyolefins based on ethylene, using a 2- or multi-component catalyst system which is easy to handle, shows high activity and give polyolefins with a high degree of branching.

L163 ANSWER 13 OF 22 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2000-602962 [58] WPIX
DOC. NO. CPI: C2000-180566 [58]
TITLE: Olefin polymerization or copolymerization with polar monomers, performed in presence of new palladium complexes with a neutral diaza-diene ligand, an alkoxy-cycloalkene carbanion and a special acid anion
DERWENT CLASS: A12; A17; A26; E11; E12
INVENTOR: GONIOUKH A; POPHAM N
PATENT ASSIGNEE: (BADI-C) BASF AG
COUNTRY COUNT: 23

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
DE 19907999	A1	20000831	(200058)*	DE	10	[0]
WO 2000050474	A1	20000831	(200058)	DE		
EP 1163277	A1	20011219	(200206)	DE		
KR 2001102384	A	20011115	(200231)	KO		
JP 2002537451	W	20021105	(200304)	JA	30	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 19907999 A1		DE 1999-19907999	19990225
EP 1163277 A1		EP 2000-916842	20000217
JP 2002537451 W		JP 2000-601051	20000217
WO 2000050474 A1		WO 2000-EP1291	20000217
EP 1163277 A1		WO 2000-EP1291	20000217
JP 2002537451 W		WO 2000-EP1291	20000217
KR 2001102384 A		KR 2001-710821	20010824

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1163277 A1	Based on	WO 2000050474 A
JP 2002537451 W	Based on	WO 2000050474 A

PRIORITY APPLN. INFO: DE 1999-19907999 19990225
ED 20050411

AB DE 19907999 A1 UPAB: 20050411

NOVELTY - Olefins are (co)polymerized in the presence of palladium complexes containing a neutral, bidentate, N,N'-disubstituted diazadiene ligand, an alkoxycycloalkene carbanion attached to Pd by sigma- and pi-bonds and an anion of a weakly- or non-coordinating acid which is unesterifiable or hardly esterifiable.

DETAILED DESCRIPTION - Polymerization of 2-12C mono-olefins or copolymerization of these olefins with polar unsaturated monomers is carried out in the presence of a palladium complex of formula (I), optionally in combination with an alkylaluminum compound.

(L1PdL2)+ An- (I)

L1 = a neutral, bidentate, N,N'-disubstituted diazadiene ligand chelating with Pd;

L2 = an alkoxycycloalkene-carbanion with 7-8 carbon atoms, attached to the Pd atom by a sigma-bond and also complexed with the Pd via a pi-bond to the C=C double bond;

An = an anion of a weakly- or non-coordinating acid which is unesterifiable or hardly esterifiable.

An INDEPENDENT CLAIM is also included for new palladium complexes of formula (I) in which:

L1 = R1-N=CR3-CR4=N-R2 (II);

R1, R2 = (1-8C hydrocarbyl)-substituted phenyl;

R3, R4 = H or 1-16C hydrocarbyl, or R3 + R4 = 1-18C hydrocarbylene; and

L2 = 1-(1-8C alkoxy)-cycloocta-4-ene @sigma,4pi-ligand.

USE - For the polymerization or copolymerization of mono-olefins. Copolymers with polar comonomers obtained by this process are used e.g. as flow or viscosity improvers for oils, as plasticizers or lubricants and for the production of polymer blends.

ADVANTAGE - Enables the polymerization of ethylene to branched polyethylene with a relatively low molecular weight and the copolymerization of ethylene with comonomers such as methyl acrylate to give low molecular weight polymers with a relatively broad molecular weight distribution.

L163 ANSWER 14 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 2

ACCESSION NUMBER: 1999:407495 BIOSIS Full-text
DOCUMENT NUMBER: PREV199900407495
TITLE: Prohexadione-Ca: Induction of resistance against bacterial and fungal pathogens in apple.
AUTHOR(S): Rademacher, W. [Reprint author]; Speakman, J. B. [Reprint author]; Krack, G.; Scholtissek, M.; Wolf, R.; Evans, J. R.; Roemmelt, S.; Treutter, D.
CORPORATE SOURCE: BASF Agricultural Center, 67114, Limburgerhof, Germany
SOURCE: Hortscience, (June, 1999) Vol. 34, No. 3, pp. 535-536. print.
Meeting Info.: 96th Annual International conference of the American Society for Horticultural Science. Minneapolis, Minnesota, USA. July 27-31, 1999. American Society for Horticultural Science.
CODEN: HJHSAR. ISSN: 0018-5345.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 8 Oct 1999
Last Updated on STN: 8 Oct 1999
ED Entered STN: 8 Oct 1999
Last Updated on STN: 8 Oct 1999

L163 ANSWER 15 OF 22 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 94314066 EMBASE Full-text
DOCUMENT NUMBER: 1994314066
TITLE: Adult worm homogenate of the nematode parasite heligmosomoides polygyrus induces proliferation of naive T lymphocytes without MHC restriction.
AUTHOR: Robinson M.; Gustad T.R.; Wei F.-Y.; David C.S.; Storey N.
CORPORATE SOURCE: BASF Bioresearch Corporation, 100 Research Drive,Worcester, MA 01536, United States
SOURCE: Cellular Immunology, (1994) Vol. 158, No. 1, pp. 157-166. . ISSN: 0008-8749 CODEN: CLIMB8
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 16 Nov 1994
Last Updated on STN: 16 Nov 1994
ED Entered STN: 16 Nov 1994
Last Updated on STN: 16 Nov 1994
AB The documented in vitro response of mouse T cells to parasite antigens is typically anamnestic and H-2 restricted. As yet, there have been no confirmed reports of the existence of a non-H-2-restricted, superantigen type of response to the antigens of metazoan parasites. Reported here are data which show that antigens produced by the adult stage of the nematode parasite Heligmosomoides polygyrus (= Nematospiroides dubius) can stimulate naive T cells in vitro to proliferate and produce IL-2. A series of T cell hybridomas has been used to show that adult worm homogenate of H. polygyrus can stimulate parasite antigen naive T cells. This response is independent of the H-2 haplotype of the antigen-presenting accessory cells and does not appear to be influenced by the presence or absence of an H-2 E molecule. However, successful presentation of the H. polygyrus superantigen does require the presence of metabolically active accessory cells and fixation of the accessory cells with paraformaldehyde abrogates the response of the target cells. This discovery has important implications for the study of the role of superantigens in host/parasite interactions and will also help to expand current knowledge about the relationship between chronic intestinal nematodes and the host immune system.

L163 ANSWER 16 OF 22 CABA COPYRIGHT 2007 CABI on STN

ACCESSION NUMBER: 2007:15944 CABA Full-text
DOCUMENT NUMBER: 20063236620
TITLE: Prohexadione-calcium induces in apple the biosynthesis of luteoforol, a novel flavan 4-ol, which is active against Erwinia amylovora
AUTHOR: Spinelli, F.; Costa, G.; Speakman, J. B.; Rademacher, W.; Halbwirth, H.; Stich, K.; Bazzi, C. [EDITOR]; Mazzucchi, U. [EDITOR]
CORPORATE SOURCE: Dipartimento di Colture Arboree, Facolta di Agraria, Universita di Bologna, viale Fanin 46, 40127, Bologna, Italy. spinelli@agrsci.unibo.it; wilhelm.rademacher@basf.com
SOURCE: Acta Horticulturae, (2006) No. 704, pp. 239-243. 17 ref.
Publisher: International Society for Horticultural Science (ISHS). Leuven
Price: Journal article; Conference paper ; 121 EURO

Meeting Info.: Proceedings of the Xth International Workshop on Fire Blight, Bologna, Italy, 5-9 July 2004.
ISSN: 0567-7572; ISBN: 90-6605-407-7
URL: http://www.actahort.org
PUB. COUNTRY: Belgium
DOCUMENT TYPE: Journal
LANGUAGE: English
ENTRY DATE: Entered STN: 8 Jan 2007
Last Updated on STN: 8 Jan 2007
ED Entered STN: 8 Jan 2007
Last Updated on STN: 8 Jan 2007
AB Treatments with prohexadione-calcium lead to lower incidence of fire blight, scab and other diseases in pome fruit trees and other crop plants. In addition to acting as a growth regulator, prohexadione-calcium interferes with flavonoid metabolism and induces the accumulation of the 3-deoxycatechin, luteoliflavan, in shoots of pome fruit trees. Luteoliflavan does not possess any remarkable antimicrobial activity. Therefore, luteoforol, its unstable and highly reactive precursor, was tested in vitro for its bactericidal and fungicidal activity. Luteoforol was found to be highly active against different strains of Erwinia amylovora, the causal agent of fire blight, and all other bacterial (Pantoea agglomerans and Pseudomonas fluorescens) and fungal organisms (Venturia inaequalis) tested. Its activity was more than 10-times higher than that of the structurally related phytoalexins luteolinidin and apigeninidin. Phytotoxic effects were observed in pear plantlets. These results indicate that prohexadione-calcium induces luteoforol as an active principle with non-specific biocidal properties. It is proposed that luteoforol is released upon pathogen attack from its cellular compartment and inhibits further disease development by destroying pathogen cells as well as by inducing a hypersensitive-like reaction in the host plant tissue.

L163 ANSWER 17 OF 22 CABA COPYRIGHT 2007 CABI on STN

ACCESSION NUMBER: 93:115395 CABA Full-text
DOCUMENT NUMBER: 19930767673
TITLE: Plant growth retardants: their mode of action and benefit for physiological research
AUTHOR: Grossmann, K.; Karssen, C. M. [EDITOR]; Loon, L. C. van [EDITOR]; Vreugdenhil, D. [EDITOR]
CORPORATE SOURCE: BASF Agricultural Research Station, 6703 Limburgerhof, Germany.
SOURCE: Progress in plant growth regulation. Proceedings of the 14th international conference on plant growth substances, Amsterdam, 21-26 July, 1991, (1992) pp. 788-797. Current Plant Science and Biotechnology in Agriculture Volume 13. 26 ref.
Publisher: Kluwer Academic Publishers. Dordrecht
Meeting Info.: Progress in plant growth regulation. Proceedings of the 14th international conference on plant growth substances, Amsterdam, 21-26 July, 1991.
ISBN: 0-7923-1617-7
PUB. COUNTRY: Netherlands Antilles
DOCUMENT TYPE: Conference Article
LANGUAGE: English
ENTRY DATE: Entered STN: 1 Nov 1994
Last Updated on STN: 1 Nov 1994
ED Entered STN: 1 Nov 1994
Last Updated on STN: 1 Nov 1994

AB The chemical nature of growth retardants and their interference with gibberellin biosynthesis are briefly discussed. Growth retardants with a nitrogen-containing heterocycle, including BAS111.W [phenoxydimethyl triazolylhexanol], mepiquat chloride, prohexadione calcium, cimectacarb, LAB 198 999, triapenthenol, paclobutrazol, ancymidol and tetcyclacis, are considered in more detail. Their effects on plant cytochrome P450-dependent monooxygenases, shoot growth, cell elongation and division, plant development and physiology, ABA metabolism and water relations are discussed with reference to crop species including chrysanthemums, sunflowers, soyabeans, rice, pumpkins and wheat.

L163 ANSWER 18 OF 22 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:976259 SCISEARCH Full-text
THE GENUINE ARTICLE: 965JF
TITLE: Me3SiC C-CMe=CH2 copper(I) beta-diketonates: Synthesis, solid state structure, and low-temperature chemical vapour deposition
AUTHOR: Shen Y; Ruffer T; Schulz S E; Gessner T; Wittenbecher L; Sterzel H J; Lang H (Reprint)
CORPORATE SOURCE: Tech Univ Chemnitz, Fak Naturwissenschaft, Inst Chem, Lehrstuhl Anorgan Chem, Str Nationen 62, D-09111 Chemnitz, Germany (Reprint); Tech Univ Chemnitz, Fak Naturwissenschaft, Inst Chem, Lehrstuhl Anorgan Chem, D-09111 Chemnitz, Germany; Tech Univ Chemnitz, Fak Elektrotech & Informationstech, Lehrstuhl Mikrotechnol, Zentrum Mikrotechnol, D-09111 Chemnitz, Germany; BASF AG, GCZ M311, D-67056 Ludwigshafen, Germany; BASF AG, ZARA M311, D-67056 Ludwigshafen, Germany
heinrich.lang@chemie.tu-chemnitz.de
COUNTRY OF AUTHOR: Germany
SOURCE: JOURNAL OF ORGANOMETALLIC CHEMISTRY, (1 SEP 2005) Vol. 690, No. 17, pp. 3878-3885.
ISSN: 0022-328X.
PUBLISHER: ELSEVIER SCIENCE SA, PO BOX 564, 1001 LAUSANNE, SWITZERLAND.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 44
ENTRY DATE: Entered STN: 6 Oct 2005
Last Updated on STN: 6 Oct 2005
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
ED Entered STN: 6 Oct 2005
Last Updated on STN: 6 Oct 2005
AB The ene-yne copper(I) beta-diketonates [(eta(2) -TMSMB)Cu(beta-diketonate)] (beta-diketonate = acetylacetonate/acac, 5; = 1,3-di-tertbutylacetonate/dbac, 6;=1,1,1,5,5,5-hexafluoroacetylacetonate/hfac, 7; TMSMB=4-TriMethylSilyl-2- Methyl-But-1-ene-3-yne, Me3SiC-C-CMe=CH2) are accessible by the reaction of [(eta(2) -TMSMB)Cu(eu-Cl)](2) (3) with [Na(beta- diketonate)] (beta-diketonate = acac, 4a; = dbac, 4b; = hfac, 4c) in a 1:2 molar ratio. Complexes 6 and 7 are also formed, when Cu2O (8) is reacted with H-hfac (9a) or H-dbac (9b), respectively. The solid state structure of 7 is reported. The copper(1) ion possesses a planar environment caused by the eta(2)-coordinated TMSMB ligand and the chelate-bound hfac group, while the CMe=CH2 entity stays free.
The thermal properties of 5-7 were determined by applying ThermoGravimetry (TG) and Differential Scanning Calorimetry (DSC). All complexes decompose in a two-step process beginning at ca. 85 degrees C. Elimination of TMSMB

produces [Cu(beta-diketonate)] which disproportionates to give [Cu(beta-diketonate)2] and elemental copper.
Preliminary hot-wall Chemical Vapour Deposition experiments (CVD) were carried out with 7. Copper films were deposited onto TiN-coated oxidised silicon wafers at a precursor vaporisation temperature of 50 degrees C and a deposition temperature of 145 degrees C. The films were characterised by SEM and EDX. (c) 2005 Elsevier B.V. All rights reserved.

L163 ANSWER 19 OF 22 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:776298 SCISEARCH Full-text
THE GENUINE ARTICLE: 848HF
TITLE: A new neighbouring-group reaction to form pyridopyrrolobenzoxazinediones
AUTHOR: Hamprecht G (Reprint); Zimmermann N; Weiss T D
CORPORATE SOURCE: BASF AG, Specialty Chem Res, D-67056 Ludwigshafen, Germany (Reprint)
gerhard.hamprecht@t-online.de
COUNTRY OF AUTHOR: Germany
SOURCE: EUROPEAN JOURNAL OF ORGANIC CHEMISTRY, (13 AUG 2004) No. 16, pp. 3551-3556.
ISSN: 1434-193X.
PUBLISHER: WILEY-V C H VERLAG GMBH, PO BOX 10 11 61, D-69451 WEINHEIM, GERMANY.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 22
ENTRY DATE: Entered STN: 24 Sep 2004
Last Updated on STN: 24 Sep 2004
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
ED Entered STN: 24 Sep 2004
Last Updated on STN: 24 Sep 2004
AB The azaphthalimide 2a is the first phthalimide oxygen found to undergo a neighboring-group participation reaction with a vicinal N-phenyl carboxylic acid chloride upon nucleophilic addition with alcohols. Owing to the free rotation of the N-phenyl moiety, hetero-anellated benzoxazinedione isomers 3 and 4 are accessible, whereby 3 is preferred to 4 as the pyridine nitrogen in 2a preferentially activates the o-carbonyl group. Yields of up to 92% were obtained when bases such as HCl acceptors were avoided by heating 2a with alcohols. The reaction is restricted to primary and secondary alcohols, as 2a is nonplanar in respect of the heterocyclic and benzene moiety, which prevents tertiary alcohols attacking the pyrrolidinedione carbonyl group. (C) Wiley-VCH Verlag GmbH & Co. KGaA, 69451 Weinheim, Germany, 2004.

L163 ANSWER 20 OF 22 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:428934 SCISEARCH Full-text
THE GENUINE ARTICLE: 549WU
TITLE: Twofold Pauson-Khand reaction of cyclic diynes in supercritical ethylene
AUTHOR: Rausch B J; Becker H; Gleiter R (Reprint); Rominger F
CORPORATE SOURCE: Univ Heidelberg, Inst Organ Chem, Neuenheimer Feld 270, D-69120 Heidelberg, Germany (Reprint); Univ Heidelberg, Inst Organ Chem, D-69120 Heidelberg, Germany; BASF Aktiengesell Forsch & Technol Chemikalien, GCI C, D-67056 Ludwigshafen, Germany.
COUNTRY OF AUTHOR: Germany

SOURCE: SYNLETT, (MAY 2002) No. 5, pp. 723-726.
ISSN: 0936-5214.
PUBLISHER: GEORG THIEME VERLAG KG, RUDIGERSTR 14, D-70469 STUTTGART, GERMANY.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 32
ENTRY DATE: Entered STN: 31 May 2002
Last Updated on STN: 31 May 2002
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
ED Entered STN: 31 May 2002
Last Updated on STN: 31 May 2002
AB The cyclic diynes 1 and 7-11 were allowed to react in supercritical (sc) ethylene under Pauson-Khand conditions to give the tricyclic diketones 4 and 12-16 in yields between 47% and 15%, respectively. Our investigations reveal that in the case of cyclic diynes the yields of Pauson-Khand reactions in organic solvents can be tripled, by carrying out the syntheses in supercritical ethylene. The geometry of the resulting sulfur substituted diones 14 and 15 was determined by means of X-ray analysis on single crystals. Additionally, the synthesis of the twofold tethered cyclopentadienes 17 and 18 and the bis(tricarbonyl- manganese) complexes 19a and 19b from tricyclic dione 4 is presented.

L163 ANSWER 21 OF 22 JAPIO (C) 2007 JPO on STN
ACCESSION NUMBER: 1999-158155 JAPIO Full-text
TITLE: PRODUCTION OF CYCLIC UREA DERIVATIVE
INVENTOR: KRAMER ANDREAS; SIEGEL WOLFGANG DR
PATENT ASSIGNEE(S): BASF AG
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 11158155	A	19990615	Heisei	C07D233-34

APPLICATION INFORMATION

STN FORMAT:	JP 1998-280002	19981001	
ORIGINAL:	JP10280002	Heisei	
PRIORITY APPLN. INFO.:	DE 1997-19743760	19971002	

SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1999
ED 20020515
AB PROBLEM TO BE SOLVED: To provide a method for producing the subject compound useful as an agricultural or pharmaceutical solvent or the like by which the compound is continuously produced in a high yield by reacting a specific urea derivative with a specific diketone, and hydrogenating the reaction product in the presence of a metal -containing catalyst.
SOLUTION: A urea derivative of formula I (Y and Y' are each independently H, a linear or branched 1-4C alkyl, a 3-12C cycloalkyl or the like) is reacted with a diketone of formula II [X and X' are each independently H, hydroxy, a linear or branched 1-4C alkyl, a 3-12C cycloalkyl, a 1-4C alkoxy or the like; Z is a single bond, a 1-4C alkylene (substituted with a group X or X')], and the reaction product is hydrogenated in the presence of a metal-containing catalyst to provide the objective cyclic urea derivative of formula III in the method for producing the cyclic urea derivative. The reaction of the urea derivative with the diketone is preferably carried out in an aqueous solvent or an aqueous organism solvent, especially preferably carried out in the aqueous organic solvent containing 1-80 weight% organic solvent based on the educt mixture. COPYRIGHT: (C)1999,JPO

L163 ANSWER 22 OF 22 JAPIO (C) 2007 JPO on STN
ACCESSION NUMBER: 2001-031615 JAPIO Full-text
TITLE: PRODUCTION OF 3,5,5-TRIMETHYLCYCLOHEX-2-ENE-1,4-DIONE
INVENTOR: KLATT MARTIN JOCHEN; MUELLER THOMAS; BOCKSTIEGEL BERNHARD DR
PATENT ASSIGNEE(S): BASF AG
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 2001031615	A	20010206	Heisei	C07C045-34

APPLICATION INFORMATION

STN FORMAT:	JP 2000-189393	20000623	
ORIGINAL:	JP2000189393	Heisei	
PRIORITY APPLN. INFO.:	DE 1999-19929367	19990625	

SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2001
ED 20020524
AB PROBLEM TO BE SOLVED: To provide a method of oxidizing β-isophorone using a manganese- salen complex, in high efficiency, also in high yield, selectivity and space time yield each convertible to large industrial scale even in case of high starting material concentration. SOLUTION: This method comprises oxidizing 3,5,5-trimethylcyclohex-3-en-1- one with molecular oxygen in the presence of a base, a solvent and a catalyst to produce the objective 3,5,5-trimethylcyclohex-2-ene- 1,4-dione; wherein a manganese-salen complex of the formula [R is hydrogen or Cl; M is Mn(II) or Mn(III)(+)Cl(-)] is used as the catalyst.
COPYRIGHT: (C)2001,JPO

=> file stnguide
FILE 'STNGUIDE' ENTERED AT 12:51:46 ON 05 FEB 2007
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb 2, 2007 (20070202/UP).

=> d his ful

(FILE 'HOME' ENTERED AT 09:47:30 ON 05 FEB 2007)

FILE 'ZCAPLUS' ENTERED AT 09:47:56 ON 05 FEB 2007
E US2004-510476/APPS

FILE 'HCAPLUS' ENTERED AT 09:48:13 ON 05 FEB 2007
L1 1 SEA ABB=ON PLU=ON US2004-510476/APPS
SAVE TEMP L1 LAO476HCAAPP/A

FILE 'STNGUIDE' ENTERED AT 09:48:28 ON 05 FEB 2007

FILE 'WPIX' ENTERED AT 09:48:31 ON 05 FEB 2007
L2 1 SEA ABB=ON PLU=ON US2004-510476/APPS
SAVE TEMP L2 LAO476WPIAPP/A

FILE 'STNGUIDE' ENTERED AT 09:48:52 ON 05 FEB 2007
D QUE L1

FILE 'HCAPLUS' ENTERED AT 09:49:35 ON 05 FEB 2007
D IBIB ED AB IND L1

FILE 'STNGUIDE' ENTERED AT 09:49:35 ON 05 FEB 2007
D QUE L2

FILE 'WPIX' ENTERED AT 09:51:09 ON 05 FEB 2007
D IALL CODE L2

FILE 'STNGUIDE' ENTERED AT 09:51:11 ON 05 FEB 2007

FILE 'REGISTRY' ENTERED AT 09:53:40 ON 05 FEB 2007

FILE 'HCAPLUS' ENTERED AT 09:53:45 ON 05 FEB 2007
L3 TRA PLU=ON L1 1- RN : 53 TERMS

FILE 'REGISTRY' ENTERED AT 09:53:48 ON 05 FEB 2007
L4 53 SEA ABB=ON PLU=ON L3
SAVE TEMP L4 LAO476REGAPP/A
D SCAN

FILE 'STNGUIDE' ENTERED AT 09:54:41 ON 05 FEB 2007

FILE 'REGISTRY' ENTERED AT 09:56:56 ON 05 FEB 2007
L5 3 SEA ABB=ON PLU=ON L4 AND PMS/CI
D SCAN

FILE 'STNGUIDE' ENTERED AT 09:57:22 ON 05 FEB 2007

FILE 'ZREGISTRY' ENTERED AT 09:58:33 ON 05 FEB 2007
E TRIOXANE/CN
E TETRAOXANE/CN

FILE 'REGISTRY' ENTERED AT 09:59:11 ON 05 FEB 2007
E FORMALDEHYDE/CN
L6 1 SEA ABB=ON PLU=ON FORMALDEHYDE/CN
E PARAFORMALDEHYDE/CN
L7 1 SEA ABB=ON PLU=ON PARAFORMALDEHYDE/CN
E TRIOXANE/CN

```
L8            1 SEA ABB=ON  PLU=ON  TRIOXANE/CN
                E TETRAOXANE/CN
L9            1 SEA ABB=ON  PLU=ON  TETRAOXANE/CN
L10           4 SEA ABB=ON  PLU=ON  (L6 OR L7 OR L8 OR L9)
                SAVE TEMP L10 LA0476MONO/A

     FILE 'STNGUIDE' ENTERED AT 10:01:24 ON 05 FEB 2007
                D QUE L10

     FILE 'REGISTRY' ENTERED AT 10:01:56 ON 05 FEB 2007
                D IDE L10 1-4

     FILE 'STNGUIDE' ENTERED AT 10:01:57 ON 05 FEB 2007

     FILE 'REGISTRY' ENTERED AT 10:03:09 ON 05 FEB 2007
L11       28004 SEA ABB=ON  PLU=ON  (50-00-0 OR 110-88-3 OR 293-30-1 OR
                30525-89-4)/RN,CRN
L12       27071 SEA ABB=ON  PLU=ON  L11 AND PMS/CI
                SAVE TEMP L11 LA0476MONMIX/A
                SAVE TEMP L12 LA0476MONPMS/A

     FILE 'STNGUIDE' ENTERED AT 10:04:50 ON 05 FEB 2007

     FILE 'REGISTRY' ENTERED AT 10:05:33 ON 05 FEB 2007
                SAVE TEMP L5 LA0476CLMPOL/A

     FILE 'STNGUIDE' ENTERED AT 10:05:50 ON 05 FEB 2007

     FILE 'REGISTRY' ENTERED AT 10:07:20 ON 05 FEB 2007
                E TIO/MF
                E TI/MF
L13          50 SEA ABB=ON  PLU=ON  L4 NOT (L5 OR L10)
L14          42 SEA ABB=ON  PLU=ON  L13 AND M/ELS
                D SCAN

     FILE 'STNGUIDE' ENTERED AT 10:09:14 ON 05 FEB 2007

     FILE 'REGISTRY' ENTERED AT 10:12:36 ON 05 FEB 2007
L15           2 SEA ABB=ON  PLU=ON  L14 AND (AG/ELS OR NA/ELS)
L16          40 SEA ABB=ON  PLU=ON  L14 NOT L15
                D SCAN L15
                SAVE TEMP L16 LA0476CLMM/A

     FILE 'STNGUIDE' ENTERED AT 10:13:39 ON 05 FEB 2007

     FILE 'REGISTRY' ENTERED AT 10:14:10 ON 05 FEB 2007
L17             SCREEN 1964 OR 1966 OR 1984 OR 1991 OR 1956 OR 1965 OR 1983

     FILE 'LREGISTRY' ENTERED AT 10:15:53 ON 05 FEB 2007
L18             STR

     FILE 'REGISTRY' ENTERED AT 10:17:08 ON 05 FEB 2007
L19          50 SEA SSS SAM (L17 AND L18)

     FILE 'LREGISTRY' ENTERED AT 10:18:36 ON 05 FEB 2007
L20             STR L18

     FILE 'REGISTRY' ENTERED AT 10:19:13 ON 05 FEB 2007
L21          50 SEA SSS SAM L20
L22          50 SEA SSS SAM (L17 AND L20)
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     FILE 'STNGUIDE' ENTERED AT 10:22:33 ON 05 FEB 2007

     FILE 'REGISTRY' ENTERED AT 10:22:42 ON 05 FEB 2007
L23          50 SEA SSS SAM L20
                D QUE STAT

     FILE 'STNGUIDE' ENTERED AT 10:22:52 ON 05 FEB 2007

     FILE 'REGISTRY' ENTERED AT 10:23:52 ON 05 FEB 2007
                D QUE STAT
L24       81815 SEA SSS FUL L20
                SAVE TEMP L24 LA0476PSET/A

     FILE 'LREGISTRY' ENTERED AT 10:24:36 ON 05 FEB 2007
L25             STR L20

     FILE 'REGISTRY' ENTERED AT 10:27:01 ON 05 FEB 2007
L26          50 SEA SUB=L24 SSS SAM L25
                D QUE STAT

     FILE 'STNGUIDE' ENTERED AT 10:27:54 ON 05 FEB 2007

     FILE 'LREGISTRY' ENTERED AT 10:28:37 ON 05 FEB 2007
L27             STR L20

     FILE 'REGISTRY' ENTERED AT 10:29:05 ON 05 FEB 2007
L28          50 SEA SUB=L24 SSS SAM (L25 OR L27)
                D QUE STAT

     FILE 'STNGUIDE' ENTERED AT 10:29:42 ON 05 FEB 2007

     FILE 'REGISTRY' ENTERED AT 10:31:38 ON 05 FEB 2007
L29          16 SEA ABB=ON  PLU=ON  L4 AND L24
                D QUE STAT L28
L30       53675 SEA SUB=L24 SSS FUL (L25 OR L27)
                SAVE TEMP L30 LA0476RSET1/A

     FILE 'STNGUIDE' ENTERED AT 10:33:21 ON 05 FEB 2007

     FILE 'HCAPLUS' ENTERED AT 10:35:14 ON 05 FEB 2007
L31           1 SEA ABB=ON  PLU=ON  L1 AND L16
                D SCAN

     FILE 'STNGUIDE' ENTERED AT 10:35:32 ON 05 FEB 2007

     FILE 'ZCAPLUS' ENTERED AT 10:37:30 ON 05 FEB 2007
L32             QUE ABB=ON  PLU=ON  LUINSTRA, G?/AU
L33             QUE ABB=ON  PLU=ON  BASF/CS,SO,PA
L34             QUE ABB=ON  PLU=ON  AY<2003 OR PY<2003 OR PRY<2003 OR MY<2003
                OR REVIEW/DT
L35             QUE ABB=ON  PLU=ON  AY<2003 OR PY<2003 OR PRY<2003
L36             QUE ABB=ON  PLU=ON  ?DIKETO? OR (DI(W)KETO?) OR ?DIONE OR
                ?DIONAT? OR ?BUTANEDION? OR ?PENTANEDION? OR ?HEXANDION? OR
                ?HEPTANDION?
L37             QUE ABB=ON  PLU=ON  ?CATALY?
L38             QUE ABB=ON  PLU=ON  ?POLYOXYMETHYLEN? OR (POLY(1A)OXYMETHYLEN?)
                 OR (POLYOXY(1A)METHYLEN?)
L39             QUE ABB=ON  PLU=ON  ?POLYMER OR HOMOPOLYMER? OR ?POLYMERI?
L40             QUE ABB=ON  PLU=ON  FORMALDEHYD? OR TRIOXANE OR TETRAOXANE OR
```



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                TETROXANE OR PARAFORMALDEHYD?
L41             QUE ABB=ON  PLU=ON  POLYMERIZATION+PFT,OLD,NEW,NT/CT
L42             QUE ABB=ON  PLU=ON  "POLYMERIZATION CATALYSTS"+PFT,OLD,NEW,NT/C
                T
L43             QUE ABB=ON  PLU=ON  POLYOXYALKYLENES+PFT,OLD,NEW,NT/CT
L44             QUE ABB=ON  PLU=ON  "POLYOXYALKYLENES, PREPARATION"+PFT,OLD,NEW
                ,NT/CT
L45             QUE ABB=ON  PLU=ON  POLYOXYMETHYLENES+PFT,OLD,NEW,NT/CT
L46             QUE ABB=ON  PLU=ON  "POLYOXYMETHYLENES, PREPARATION"+PFT,OLD,NE
                W,NT/CT

     FILE 'REGISTRY' ENTERED AT 10:46:14 ON 05 FEB 2007
L47           2 SEA ABB=ON  PLU=ON  L4 AND L11
L48          16 SEA ABB=ON  PLU=ON  L4 AND L24

     FILE 'HCAPLUS' ENTERED AT 10:46:42 ON 05 FEB 2007
L49           1 SEA ABB=ON  PLU=ON  L48
                D QUE
L50        1858 SEA ABB=ON  PLU=ON  L16 (L) L36
L51      144654 SEA ABB=ON  PLU=ON  L16 (L) CAT/RL
L52         217 SEA ABB=ON  PLU=ON  L50 AND L51
L53       45193 SEA ABB=ON  PLU=ON  L30
L54       10238 SEA ABB=ON  PLU=ON  L53 (L) CAT/RL
L55        3687 SEA ABB=ON  PLU=ON  L53 (L) (L38 OR L39)
L56       10791 SEA ABB=ON  PLU=ON  L53 (L) L37
L57        2657 SEA ABB=ON  PLU=ON  (L54 OR L56) AND L55
L58        3936 SEA ABB=ON  PLU=ON  L53 AND L42
L59        8834 SEA ABB=ON  PLU=ON  L5
L60      247485 SEA ABB=ON  PLU=ON  ((?POLYOXYMETHYLEN?/OBI OR (POLY/OBI(1A)OXY
                METHYLEN?/OBI) OR (POLYOXY/OBI(1A)METHYLEN?/OBI)) OR (L43 OR
                L44 OR L45 OR L46))
                D QUE L40
L61        45115 SEA ABB=ON  PLU=ON  L40 (15A)L39
L62         3796 SEA ABB=ON  PLU=ON  L10 (L) L39
L63          279 SEA ABB=ON  PLU=ON  (L59 OR L60 OR L61 OR L62) AND (L49 OR L52
                OR L57 OR L58)
                D QUE L44
                D QUE L45
                D QUE L46
L64           44 SEA ABB=ON  PLU=ON  L63 AND (L5 OR L38 OR (L45 OR L46))

     FILE 'REGISTRY' ENTERED AT 10:53:56 ON 05 FEB 2007
                SET SMARTSELECT ON
L65             SEL PLU=ON  L5 1- NAME :      45 TERMS
                SET SMARTSELECT OFF

     FILE 'HCAPLUS' ENTERED AT 10:53:57 ON 05 FEB 2007
L66        35639 SEA ABB=ON  PLU=ON  L65
L67           32 SEA ABB=ON  PLU=ON  L63 AND L66
L68            4 SEA ABB=ON  PLU=ON  L63 AND (L32 OR L33)
                SAVE TEMP L68 LA0476HCAINV/A
                D SCAN

     FILE 'STNGUIDE' ENTERED AT 10:55:17 ON 05 FEB 2007

     FILE 'HCAPLUS' ENTERED AT 10:55:59 ON 05 FEB 2007
L69          159 SEA ABB=ON  PLU=ON  L53 AND (L32 OR L33)
L70           11 SEA ABB=ON  PLU=ON  L69 AND (L59 OR L60 OR L61 OR L62)
L71           11 SEA ABB=ON  PLU=ON  L68 OR L70
L72            1 SEA ABB=ON  PLU=ON  L71 AND L32
```



```
L73           11 SEA ABB=ON  PLU=ON  (L71 OR L72)
                SAVE TEMP L73 LA0476HCAINV/A
L74            0 SEA ABB=ON  PLU=ON  L1 NOT L73
L75           50 SEA ABB=ON  PLU=ON  L64 OR L67
L76           48 SEA ABB=ON  PLU=ON  L75 NOT L73
L77           48 SEA ABB=ON  PLU=ON  L76 AND L34
                SAVE TEMP L77 LA0476HCAB/A

     FILE 'STNGUIDE' ENTERED AT 10:58:44 ON 05 FEB 2007

     FILE 'HCAPLUS' ENTERED AT 11:07:54 ON 05 FEB 2007
L78        90552 SEA ABB=ON  PLU=ON  L12
L79           81 SEA ABB=ON  PLU=ON  L78 AND (L49 OR L52 OR L57 OR L58)
L80           79 SEA ABB=ON  PLU=ON  L79 NOT L73
L81           75 SEA ABB=ON  PLU=ON  L80 AND L34
L82           49 SEA ABB=ON  PLU=ON  L81 NOT L77
L83            1 SEA ABB=ON  PLU=ON  L82 AND L10
L84           23 SEA ABB=ON  PLU=ON  L82 AND L40

     FILE 'STNGUIDE' ENTERED AT 11:10:32 ON 05 FEB 2007

     FILE 'ZCAPLUS' ENTERED AT 11:12:02 ON 05 FEB 2007
                E C08G002-00/IPC
                E E111+ALL
                E C07F0011-00/IPC
                E E148+ALL
L85             QUE ABB=ON  PLU=ON  TI OR TIO OR ZR OR ZRO OR VO OR V OR CRO2
                OR CR OR MOO2 OR MO OR WO2 OR W OR MNO2 OR MN OR REO2 OR RE OR
                FE OR RU OR CO OR RH OR IR OR NI OR PD OR PT OR CU OR ZN OR CD
                OR HG OR SN OR SNO OR PBO OR PB
L86             QUE ABB=ON  PLU=ON  TITAN? OR ZIRCON? OR HAFN? OR VANAD? OR
                CHROMI? OR CHROMAT? OR MOLYBD? OR TUNGST? OR MANGANA? OR
                MANGANES? OR RHENIUM? OR RHENAT? OR IRON OR FERRIC OR FERRIUM
                OR FERROUS OR RUTHEN? OR COBALT? OR RHODIUM? OR RHODAT? OR
                IRIDIUM? OR IRIDAT?
L87             QUE ABB=ON  PLU=ON  NICKEL OR PALLAD? OR PLATINAT? OR PLATINUM?
                 OR COPPER OR CUPRIC OR CUPROUS OR ZINC? OR CADMIUM? OR
                CADMAT? OR MERCURY? OR STANAT? OR STANNOUS OR TIN OR LEAD

     FILE 'REGISTRY' ENTERED AT 11:25:02 ON 05 FEB 2007

     FILE 'USPATFULL, USPAT2' ENTERED AT 11:25:12 ON 05 FEB 2007
L88         2441 SEA ABB=ON  PLU=ON  L5
L89          231 SEA ABB=ON  PLU=ON  L88 AND (L45 OR L46)
L90          255 SEA ABB=ON  PLU=ON  L88 AND L16
L91           21 SEA ABB=ON  PLU=ON  L89 AND L90
L92           12 SEA ABB=ON  PLU=ON  L91 AND L34
                SAVE TEMP L92 LA0476USP/A

     FILE 'STNGUIDE' ENTERED AT 11:26:39 ON 05 FEB 2007

     FILE 'WPIX' ENTERED AT 11:27:02 ON 05 FEB 2007
                D QUE L30
                D QUE L24
L93            0 SEA SSS SAM L20
L94            0 SEA SSS FUL L20
                SAVE TEMP L94 LA0476WPIS/A

     FILE 'STNGUIDE' ENTERED AT 11:28:14 ON 05 FEB 2007
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```
FILE 'STNGUIDE' ENTERED AT 11:32:16 ON 05 FEB 2007

FILE 'WPIX' ENTERED AT 11:39:29 ON 05 FEB 2007
             E 0111-66402/MCN
L95            1 SEA ABB=ON  PLU=ON  0111-66402/MCN
               D TRI
               E 00222/RIN
L96          688 SEA ABB=ON  PLU=ON  00222/RIN
               D TRI
               E 00222/SRIN
L97           21 SEA ABB=ON  PLU=ON  00222/SRIN
               D TRI

FILE 'STNGUIDE' ENTERED AT 11:43:39 ON 05 FEB 2007

FILE 'WPIX' ENTERED AT 11:44:02 ON 05 FEB 2007

FILE 'ZCAPLUS' ENTERED AT 11:44:24 ON 05 FEB 2007
L98            QUE ABB=ON  PLU=ON  C08G0002-06/IPC
L99            QUE ABB=ON  PLU=ON  C08G0002-08/IPC

FILE 'WPIX' ENTERED AT 11:45:43 ON 05 FEB 2007
L100           QUE ABB=ON  PLU=ON  (E05-F02 OR E05-L OR E05-M OR E05-N)/MC
L101           QUE ABB=ON  PLU=ON  ((A922 (P) A960)(P)Q121)/M0,M1,M2,M3,M4,M5,
               M6

FILE 'STNGUIDE' ENTERED AT 11:47:14 ON 05 FEB 2007

FILE 'WPIX' ENTERED AT 11:47:47 ON 05 FEB 2007
L102        3485 SEA ABB=ON  PLU=ON  (L85 OR L86 OR L87)(10A)L36
L103         812 SEA ABB=ON  PLU=ON  L100 AND L36
L104          15 SEA ABB=ON  PLU=ON  L101 AND (L102 OR L103)
L105           1 SEA ABB=ON  PLU=ON  L104 AND (L98 OR L99)
               D TRI
L106           QUE ABB=ON  PLU=ON  P1887/PLE
               D HIS20
L107           1 SEA ABB=ON  PLU=ON  L104 AND L106
L108           1 SEA ABB=ON  PLU=ON  L101 AND L100 AND L106
L109           1 SEA ABB=ON  PLU=ON  L104 AND (L38 OR L40)
L110           3 SEA ABB=ON  PLU=ON  L104 AND (L32 OR L33)
               SAVE TEMP L110 LA0476WPIINV/A
L111        2301 SEA ABB=ON  PLU=ON  (L104 OR L105 OR L106 OR L107 OR L108 OR
               L109)
L112          15 SEA ABB=ON  PLU=ON  (L104 OR L105) OR (L107 OR L108 OR L109)
L113          12 SEA ABB=ON  PLU=ON  L112 NOT L110
L114          11 SEA ABB=ON  PLU=ON  L113 AND L34
               D TRI 8-11
L115          11 SEA ABB=ON  PLU=ON  L114 AND L36
               D KWIC 5
               SAVE TEMP L115 LA0476WPIB/A

FILE 'STNGUIDE' ENTERED AT 11:55:24 ON 05 FEB 2007

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 11:56:50 ON 05 FEB 2007
L116        2328 SEA ABB=ON  PLU=ON  L5
L117        3668 SEA ABB=ON  PLU=ON  (L85 OR L86 OR L87) (10A) L36
L118         381 SEA ABB=ON  PLU=ON  L117 (L) L37
L119           0 SEA ABB=ON  PLU=ON  L116 AND L118
L120       11873 SEA ABB=ON  PLU=ON  L65
L121       11991 SEA ABB=ON  PLU=ON  L120 OR L38
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L122           0 SEA ABB=ON  PLU=ON  L118 AND L121
L123           5 SEA ABB=ON  PLU=ON  L118 AND L40
L124           0 SEA ABB=ON  PLU=ON  L117 AND (L116 OR L121)
L125           5 SEA ABB=ON  PLU=ON  L119 OR L122 OR L123 OR L124
               D SCAN
L126           2 SEA ABB=ON  PLU=ON  (L116 OR L117 OR L120 OR L121) AND (L32 OR
               L33)
               SAVE TEMP L126 LA0476MBEINV/A
               D SCAN
L127           5 SEA ABB=ON  PLU=ON  L125 NOT L126
L128           1 SEA ABB=ON  PLU=ON  L127 AND L34
               SAVE TEMP L128 LA0476MBEB/A
               D SCAN
               D TRI

FILE 'STNGUIDE' ENTERED AT 12:03:14 ON 05 FEB 2007

FILE 'JAPIO' ENTERED AT 12:04:12 ON 05 FEB 2007
L129         974 SEA ABB=ON  PLU=ON  (METAL OR (L85 OR L86 OR L87)) (15A)L36
L130       13151 SEA ABB=ON  PLU=ON  L39(5A)L37
L131          34 SEA ABB=ON  PLU=ON  L129 AND L130
L132         844 SEA ABB=ON  PLU=ON  L65
L133           0 SEA ABB=ON  PLU=ON  L131 AND (L132 OR L40 OR L38)
L134         844 SEA ABB=ON  PLU=ON  L65
L135           5 SEA ABB=ON  PLU=ON  L129 AND (L134 OR L40 OR L38)
L136           5 SEA ABB=ON  PLU=ON  L133 OR L135
               D SCAN
L137           0 SEA ABB=ON  PLU=ON  L136 AND (L37 OR ACTIVAT?)
L138         201 SEA ABB=ON  PLU=ON  L129 AND L37
L139          64 SEA ABB=ON  PLU=ON  L138 AND L39
L140           5 SEA ABB=ON  PLU=ON  L129 AND ACTIVAT?
L141           3 SEA ABB=ON  PLU=ON  L140 AND L39
L142          65 SEA ABB=ON  PLU=ON  L139 OR L141
L143           0 SEA ABB=ON  PLU=ON  L142 AND (L132 OR L40 OR L38)
               SAVE TEMP L143 LA0476JAPB/A
L144           2 SEA ABB=ON  PLU=ON  L129 AND (L32 OR L33)
               D SCAN
L145           2 SEA ABB=ON  PLU=ON  L144 AND (L37 OR ACTIV?)
               SAVE TEMP L145 LA0476JAPIN/A

FILE 'STNGUIDE' ENTERED AT 12:10:31 ON 05 FEB 2007

FILE 'MEDLINE, BIOSIS, EMBASE, PASCAL, JICST-EPLUS, APOLLIT, CABA,
SCISEARCH, CONFSCI, DISSABS' ENTERED AT 12:11:58 ON 05 FEB 2007
L146       10824 SEA ABB=ON  PLU=ON  (METAL OR (L85 OR L86 OR L87))(7A) L36
L147         772 SEA ABB=ON  PLU=ON  L146(15A)(ACTIVAT? OR L37)
L148           0 SEA ABB=ON  PLU=ON  L147 AND L38
L149           8 SEA ABB=ON  PLU=ON  L147 AND L40
L150       19047 SEA ABB=ON  PLU=ON  L65
L151           0 SEA ABB=ON  PLU=ON  L147 AND L150
L152           6 SEA ABB=ON  PLU=ON  L146 AND (L32 OR L33)
               SAVE TEMP L152 LA0476MULINV/A
               D SCAN
L153          14 SEA ABB=ON  PLU=ON  L148 OR L149 OR L151 OR L152
L154           8 SEA ABB=ON  PLU=ON  L148 OR L149 OR L151
               D SCAN
L155        1888 SEA ABB=ON  PLU=ON  L146 AND (ACTIVAT? OR L37)
L156          14 SEA ABB=ON  PLU=ON  L155 AND L40
L157           0 SEA ABB=ON  PLU=ON  L155 AND L150
L158           0 SEA ABB=ON  PLU=ON  L155 AND L38
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L159          14 SEA ABB=ON  PLU=ON  L154 OR L156 OR L157 OR L158
L160          14 SEA ABB=ON  PLU=ON  L159 NOT L152
L161           2 SEA ABB=ON  PLU=ON  L160 AND L34
               SAVE TEMP L161 LA0476MULB/A

FILE 'STNGUIDE' ENTERED AT 12:31:14 ON 05 FEB 2007
               D QUE STAT L24
               D QUE STAT L30
               D QUE NOS L77
               D QUE NOS L92
               D QUE STAT L92
               D QUE STAT L94
               D QUE L115
               D QUE NOS L128
               D QUE NOS L134
               D QUE L161
               D QUE NOS L143

FILE 'HCAPLUS, USPATFULL, USPAT2, WPIX, EMBASE' ENTERED AT 12:41:55 ON 05
FEB 2007
L162           71 DUP REM L77 L92 L115 L128 L161 L143 (3 DUPLICATES REMOVED)
                  ANSWERS '1-48' FROM FILE HCAPLUS
                  ANSWERS '49-58' FROM FILE USPATFULL
                  ANSWERS '59-69' FROM FILE WPIX
                  ANSWERS '70-71' FROM FILE EMBASE

FILE 'STNGUIDE' ENTERED AT 12:42:06 ON 05 FEB 2007

FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' ENTERED AT 12:42:36 ON 05 FEB 2007
               D IBIB ED AB HITIND HITSTR

FILE 'STNGUIDE' ENTERED AT 12:42:38 ON 05 FEB 2007

FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' ENTERED AT 12:43:17 ON 05 FEB 2007
               D IBIB ED AB HITIND HITSTR 2-48

FILE 'STNGUIDE' ENTERED AT 12:43:40 ON 05 FEB 2007

FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' ENTERED AT 12:45:26 ON 05 FEB 2007
               D IBIB AB HITSTR 49-58

FILE 'STNGUIDE' ENTERED AT 12:45:32 ON 05 FEB 2007

FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' ENTERED AT 12:46:22 ON 05 FEB 2007
               D IALL ABEQ TECH ABEX 59-69

FILE 'STNGUIDE' ENTERED AT 12:46:36 ON 05 FEB 2007

FILE 'HCAPLUS, USPATFULL, WPIX, EMBASE' ENTERED AT 12:48:49 ON 05 FEB 2007
               D IBIB ED AB IND 70-71

FILE 'STNGUIDE' ENTERED AT 12:48:51 ON 05 FEB 2007
               D QUE NOS L73
               D QUE L110
               D QUE NOS L126
               D QUE NOS L152
               D QUE NOS L143
               D QUE NOS L145

FILE 'HCAPLUS, WPIX, BIOSIS, EMBASE, CABA, SCISEARCH, JAPIO' ENTERED AT
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```
12:51:08 ON 05 FEB 2007
L163           22 DUP REM L73 L110 L126 L152 L145 (2 DUPLICATES REMOVED)
                  ANSWERS '1-11' FROM FILE HCAPLUS
                  ANSWERS '12-13' FROM FILE WPIX
                  ANSWER '14' FROM FILE BIOSIS
                  ANSWER '15' FROM FILE EMBASE
                  ANSWERS '16-17' FROM FILE CABA
                  ANSWERS '18-20' FROM FILE SCISEARCH
                  ANSWERS '21-22' FROM FILE JAPIO

FILE 'STNGUIDE' ENTERED AT 12:51:15 ON 05 FEB 2007

FILE 'HCAPLUS, WPIX, BIOSIS, EMBASE, JAPIO, CABA, SCISEARCH' ENTERED AT
12:51:24 ON 05 FEB 2007
               D IBIB ED AB 1-22

FILE 'STNGUIDE' ENTERED AT 12:51:30 ON 05 FEB 2007

FILE 'STNGUIDE' ENTERED AT 12:51:46 ON 05 FEB 2007


FILE HOME

FILE ZCAPLUS

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FILE COVERS 1907 - 5 Feb 2007  VOL 146 ISS 7
FILE LAST UPDATED: 4 Feb 2007  (20070204/ED)

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FILE LAST UPDATED: 4 Feb 2007  (20070204/ED)

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FILE STNGUIDE
FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb 2, 2007 (20070202/UP).

FILE WPIX
FILE LAST UPDATED: 29 JAN 2007 <20070129/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE: 200707 <200707/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> YOU ARE IN THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX <<<

>>> IPC Reform reclassification data for the backfile is being loaded into the database during January 2007. There will not be any update date (UP) written for the reclassified documents, but they can be identified by 20060101/UPIC. <<<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE, PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
http://scientific.thomson.com/support/patents/coverage/latestupdates/

PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE
http://www.stn-international.de/stndatabases/details/ipc_reform.html and
http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf

>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX PLEASE SEE
http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<

>>> New and revised Manual Codes went live in Derwent World Patents Index To view the lists of new, revised and retired codes for both CPI and EPI, please go to:
http://scientific.thomson.com/dwpi-manualcoderevision <<<

FILE REGISTRY
Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 4 FEB 2007 HIGHEST RN 919280-84-5
DICTIONARY FILE UPDATES: 4 FEB 2007 HIGHEST RN 919280-84-5

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TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 4 FEB 2007 HIGHEST RN 919280-84-5
DICTIONARY FILE UPDATES: 4 FEB 2007 HIGHEST RN 919280-84-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

FILE LREGISTRY
LREGISTRY IS A STATIC LEARNING FILE

NEW CAS INFORMATION USE POLICIES, ENTER HELP USAGETERMS FOR DETAILS.

FILE USPATFULL
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 1 Feb 2007 (20070201/PD)
FILE LAST UPDATED: 1 Feb 2007 (20070201/ED)
HIGHEST GRANTED PATENT NUMBER: US7171694
HIGHEST APPLICATION PUBLICATION NUMBER: US2007028338
CA INDEXING IS CURRENT THROUGH 1 Feb 2007 (20070201/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 1 Feb 2007 (20070201/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2006
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2006

FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 1 Feb 2007 (20070201/PD)
FILE LAST UPDATED: 1 Feb 2007 (20070201/ED)
HIGHEST GRANTED PATENT NUMBER: US2006275693
HIGHEST APPLICATION PUBLICATION NUMBER: US2007028319
CA INDEXING IS CURRENT THROUGH 1 Feb 2007 (20070201/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 1 Feb 2007 (20070201/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2006
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2006

FILE MEDLINE
FILE LAST UPDATED: 3 Feb 2007 (20070203/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R)) and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate

substance identification.

FILE BIOSIS
FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 31 January 2007 (20070131/ED)

FILE EMBASE
FILE COVERS 1974 TO 5 Feb 2007 (20070205/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE JAPIO
FILE LAST UPDATED: 5 FEB 2007 <20070205/UP>
FILE COVERS APRIL 1973 TO OCTOBER 26, 2006

>>> GRAPHIC IMAGES AVAILABLE <<<

FILE PASCAL
FILE LAST UPDATED: 5 FEB 2007 <20070205/UP>
FILE COVERS 1977 TO DATE.

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION IS AVAILABLE IN THE BASIC INDEX (/BI) FIELD <<<

FILE JICST-EPLUS
FILE COVERS 1985 TO 29 JAN 2007 (20070129/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED TERM (/CT) THESAURUS RELOAD.

FILE APOLLIT
FILE LAST UPDATED: 22 DEC 2005 <20051222/UP>
FILE COVERS 1973 TO 2005

THE APOLLIT FILE IS NO LONGER BEING UPDATED. ******
** USE FILE RAPRA FOR UP-TO-DATE POLYMER INFORMATION **

FILE CABA
FILE COVERS 1973 TO 5 Feb 2007 (20070205/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

The CABA file was reloaded 7 December 2003. Enter HELP RLOAD for details.

FILE SCISEARCH

FILE COVERS 1974 TO 1 Feb 2007 (20070201/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.

FILE CONFSCI
FILE COVERS 1973 TO 3 Jan 2007 (20070103/ED)

CSA has resumed updates, see NEWS FILE

FILE DISSABS
FILE COVERS 1861 TO 26 JAN 2007 (20070126/ED)

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